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ABSTRACT

GRADES OR AGES: Primary grades. SUBJECT MATTER: Remedial speech instruction. ORGANIZATION AND PHYSICAL APPEARANCE: The guide is divided into six units and several appendixes, each of which is straight text interspersed with illustrations. It is offset printed and spiral-bound with a paper cover. OBJECTIVES AND ACTIVITIES: The objective of the guide, as stated in the introduction, is to provide supplementary speech therapy for children whose speech "though not defective, is not good." Three units give specific suggestions for relaxation exercises, exercises for various parts of the speech mechanism, and drill materials for practice in producing consonant sounds. INSTRUCTIONAL MATERIALS: Unit 5 lists typical symptoms of several types of serious speech defects; unit 6 lists hearing and speech services in South Carolina; and several appendixes list books and articles, categorized by the type of speech defect involved. STUDENT ASSESSMENT: No mention. (RT)

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Help for Children with Speech and Hearing Problems

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A Handbook for Teachers and Parents

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State Superintendent of Education

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FOREWORD

In recognition of the severe handicap imposed upon children with speech disabilities, the Program for Exceptional Children has prepared this handbook as a guide for remedial instruction. While the role of the speech clinician can never be supplanted, only an approach utilizing the teacher-parent-clinician team can hope to produce the desired remediation of speech difficulties.

It is our hope that the understanding solicited through informative discussions and the practical aids suggested to parents and teachers may foster a more effective team for our speech handicapped children.

CYRIL B. BUSBEE,
State Superintendent of Education.

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INTRODUCTION

Speech problems can seriously affect the life of a child. His normal development can be hampered by the frustrations that result from his failure to communicate his ideas and thoughts. He begins to feel set apart, different, and has difficulty with his school work. When parents and teachers help him overcome this difficulty – or to find ways of adjusting to it – the child becomes a happier, better adjusted person. His progress in school becomes more nearly normal.

Classroom teachers and parents cannot handle all speech problems; some need the attention of a professional speech therapist. However, this booklet will help them distinguish which cases they can handle and which need referral, and will give some suggestions for helping the child in the classroom and at home. As such, it should prove to be a valuable aid.

This book is meant to be a supplement to the regular phonic activity in the primary grades. It is not a substitute for speech therapy, but rather it is intended for the greater majority whose speech, though not defective, is not good. The suggestions should be *integrated into a class unit activity.* For the speech defective, it will augment the work of the speech therapist; for his class as a unit, it will provide stimulation for more distinct articulation and develop the phonic concepts which are necessary.

WHAT IS DEFECTIVE SPEECH?

Speech may be termed defective if it interferes with communication by:

(a) Causing undue concern to the speaker.

(b) Calling attention to itself; i.e., we are more concerned with the manner in which an idea is expressed than with the idea itself.

(c) Being inappropriate to the age level and development of the child. We cannot expect the depth or mode of expression from a three year old that we expect from his teen-aged brother. Consequently, speech is not truly defective if in the first grade a child cannot produce some of the consonant blends. His level of maturation does not permit him this accomplishment. Nor is the speech defective if a child produces a distorted "s" sound when the upper and lower incisors are missing.

THE ILL EFFECTS OF NOT CORRECTING DEFECTIVE SPEECH

A popular but erroneous idea is that a pupil will outgrow a speech defect. In a limited number of cases this might happen, but in the main, age brings self-consciousness rather than a cure. Speech defects are often the cause of emotional maladjustment. Imagine the frustration one must experience when, by nature a social being, he has to lead a life of relative seclusion because of his inability to express himself adequately. Further, a speech defective

is barred from many professions and vocations for which he might be qualified in all areas except speech.

JUSTIFICATION FOR SPEECH CORRECTION IN THE SCHOOLS

In our schools we are to equip the child for his position in life. We must not forget that in life speech is his means of communication. Further, if we are to teach him to think worthy thoughts, then we should also teach him to give worthy expression to those thoughts.

CAUSES OF SPEECH DEFECTS

The causes for speech defects may be divided into these four:

(1) Anatomical – a malformation of the mouth cavity; e.g., cleft palate, tongue-tie, paralysis of the tongue, etc. A hearing loss may also affect speech.

(2) Emotional – usually the cause of stuttering, hysterical aphonia, etc., and may also be a contributory factor in other speech defects.

(3) Environmental – cases where a poor speech standard is present in the home – imitates the speech errors of another individual.

(4) Functional – improper usage of native equipment. The majority of articulatory speech defects are functional.

THE TYPES OF DEFECTS

Here we are concerned merely with enumerating the various types of speech defects. A brief description of each is presented as an aid to identification by the teacher and parent. Inasmuch as the teacher will deal most directly with the articulatory speech defectives, this category will be discussed at some length a little later on.

It is well to indicate the necessity for being aware of the emotional implications in the speech defective child. Emotional maladjustment may be the CAUSE of many and varied speech symptoms. Certainly the child might become emotionally maladjusted BECAUSE of the speech defect. Though it is not the province of the classroom teacher nor the parent to diagnose speech defects, nor to initiate therapeutic programs for children with severe speech defects, we feel that a realization of the emotional factors attending speech defects indicates the necessity for patient understanding by parents and teachers.

The following is a classification of the various types of speech defects:

1. Articulatory defects – substitution of sounds, omission or slighting of sounds. It is often called baby talk or tongue-tie (e.g., "I tee a wabbit" rather than "I see a rabbit" or "ma" for "man").

2. Stuttering – non-rhythmic speech which is usually a symptom of an emotional problem. It is characterized by:
   (a) A blocking or spasm which interrupts the rhythmic pattern of speech.
   (b) Repetition of sounds, words, etc.
   (c) Use of starters such as "oh," clicking of teeth, etc.
   (d) Visible body tensions – facial contortions.
   (e) Appearance of negativism or stubbornness which may be silent stuttering.

3. Cleft palate – congenital fissure in the palate. In cases of repaired cleft palate, speech may be nasalized because child hasn't learned to control the musculature. In the case of unrepaired cleft, there is no way to prevent sound from entering the nasal passage. Cleft palate speech may be recognized by:
   (a) Abnormal structure of lips and/or palate.
   (b) Poor articulation accompanied by nasal snort.
   (c) Nasalized voice.

4. Aphasia – defect or loss of power to communicate by speech, writing, or signs and/or of comprehending spoken or written language. This condition is caused by injury to certain brain centers. Some of the more apparent symptoms are:
   (a) Inability to speak even though the individual can understand what is spoken to him.
   (b) Inability to understand though he may be able to repeat words.
   (c) Speech which is apparently jargon, yet which has meaning if it is analyzed.
   (d) Inability to recall grammatical forms and usages.

5. Aphonia – loss of voice. At best patient produces a whisper. This may have anatomical or psychogenic causes.

6. Cerebral palsy – a condition caused by brain damage usually affecting muscular activity. Though it is improper, the general term, spastic, is used. Not all cerebral palsied are speech defective. However, defective speech resulting from cerebral palsy may be recognized by:
   (a) Excessive drooling.
   (b) Labored expression accompanied by contortions.
   (c) Shallow or reverse breathing.
   (d) Articulatory disorders, which might best be called "thick-tongued" speech.
   (e) Paralysis of vocal cords.

7. Hard of Hearing Speech – we regulate our speech by the way it sounds to us. Unless the hard of hearing person is given special training, his speech will deteriorate if it is developed, or will be imperfectly developed if a hard of hearing condition exists prior to development of

speech. The voice is imperfect and unstable. An articulatory disorder is usually present.

8. Delayed Speech – if a child who has reached his 30th month (some say 42nd) does not use speech as a serviceable tool it is considered delayed.

   The more common symptoms are:

   (a) Use of gestures rather than words.

   (b) Distorted words.

   (c) Sub-standard vocabulary for his age.

9. Defects of Voice – voice which is not appropriate for the age and sex of the individual. It does not permit clarity and strength of expression in normal situations. It may be:

   (a) Strident.

   (b) Husky.

   (c) Weak.

   (d) Nasal, etc.

10. Dialectical problems – difficulty in producing sounds used in an acquired language because these sounds are not used in the native tongue.

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UNIT I

GOOD LISTENING HABITS FOR NON-VERBAL SOUNDS

Normally we learn to talk by imitating what we hear. Some children are not good listeners because they do not observe auditory cues closely enough. Before a child learns to read, he is taught to be observant of visual cues. It is only fitting as we begin a project of speech improvement that the child is taught to be observant of auditory cues.

LEARNING TO IDENTIFY ENVIRONMENTAL SOUNDS

Ask the child to close his eyes and put his head on his desk or a table. Advise him that you are going to make a noise and want him to guess what you did. The following environmental sounds are suggested:

1. Close a door.
2. Raise a window.
3. Click a light switch.
4. Write on the board.
5. Close a book.
6. Move a chair.
7. Shut a desk drawer.
8. Drop a pencil.
9. Shuffle feet.
10. Tear paper.

After each activity, ask the child, "What did I do?"

When the child identifies these sounds accurately, create several different sounds and ask, "What did I do? – What did I do first?" In your first attempts, pair sounds that are distinctly different. For example, close the door and then drop a pencil, or click the light switch and move a chair. As the children become adept at identifying the sounds and discriminating between them, pair sounds that are more nearly alike. For example, shuffle your feet and then tear a piece of paper, or raise a window and then shut a desk drawer, or click a light switch and then drop a pencil.

At school various children might be asked to make the noises so that their interest might be sustained more readily. Ask a child to come to the front of the room. Quietly instruct him to hop, to jump up and down with both feet, to skip, to walk, or to run. Ask the members of the class who have had their eyes covered, "What did Johnny do?"

Other sounds can be introduced into the situation. Some suggestions are the following:

1. A whistle.
2. A bell.
3. A single note on mouth organ, pitch pipe or piano.
4. Rhythm band instruments.

In a sense we might say that we are helping children develop a "vocabulary" of sounds. Apart from its implication in speech, it is a good mental discipline inasmuch as observation is fundamental to the operation of all five senses.

FOR PITCH DISCRIMINATION

Once you find the child can easily identify various sounds, interest should be directed toward pitch discrimination. We wish him to determine whether the sound is low or high.

Using a pitch pipe, piano, or your voice, teach the child to recognize low notes and high notes. Once he can recognize the pitch as low or high, suggest that he raise his hand if the sound is high and sit down if the note is low. This can be varied by telling him to "stand tall" for a high sound and stoop for a low sound, etc.

A game of "Same or Different" can be played to test his ability to discriminate pitch. With a piano or pitch pipe, play the same note three times and ask: "Are they the same or different?" Play three notes again, this time changing the pitch of one note. Ask: "Are they the same or different? Where was the note that is different? At the beginning, in the middle or at the end?"

A game that a class of children will enjoy is "What is my name?" Instruct the children to ask: "What's my name?" when you tap them on the shoulder. Have the children rest their heads on the desk with eyes closed. Move about the room having various children ask: "What's my name?," and have the other children guess.

FOR VOLUME DISCRIMINATION

Another quality of any sound is its volume. Is it loud or soft? Demonstrate to the child loud and soft sounds. Then use a pitch pipe, piano, clapping the hands, or tapping the feet, etc., and ask the child: "Was it loud or soft?" When the child can identify sounds as loud or soft, he is ready to play "How is it Different?" Play 3 notes on a pitch pipe or piano. Play each note in the same pitch and at the same volume. Ask the child if they are the same or different. Then play the same 3 notes, but play one slightly louder. Ask the child, "Are they the same or different? How are they different?" The next time vary the pitch of one note, the pitch and volume of one note, the pitch of one note and the volume of another, etc.

FOR DISCRIMINATION OF RHYTHMIC PATTERNS

When two or more sounds are joined in a composite whole, a rhythmic pattern results. Most readily identifiable is the *rhythm* in music. But speech has rhythm too. This rhythm is exaggerated in poetic composition but is also an essential aspect of prose speech. Technically we would be concerned with the duration of phonation on vowel sounds, the consonantal quality and the rate of utterance. For our purpose, however, we need only develop a feeling and appreciation for rhythm in general.

Strike a key on the piano, sound a note on the pitch pipe, or sing a note. Demonstrate to the child a long sound and a short sound. Then ask him to identify the sounds as either long or short.

Combine four notes of the same pitch and volume. Play two series of these notes and ask the child if they are the same or different. Suggested combinations:

1. Short, long, long, long.
   Short, long, long, short.

2. Long, short, long, short.
   Long, long, short, long.

Ask the child to repeat rhythmic patterns. Pat the desk or table with your hands with these suggested rhythmic patterns. (L), indicates left hand; (R), right hand.

1 (L) 2 (R) 3 (R) ; 1 (L) 2 (R) 3 (R)

1 (L) 2 (R) ; 1 (L) 2 (R) ; 1 (L) 2 (R)

1 (L)(R) 2 (R) 3 (L)(R) 4 (R) ; 1 (L)(R) 2 (R) 3 (L)(R) 4 (R)

Other well known rhythm activities are very helpful. Clapping to keep time to music or marching either to music or poetry are pleasant activities for young children.

We are interested in teaching children to be observant of auditory cues because of their implication in a speech improvement program, although we are not disregarding the fact that the exercise is a mental discipline and fundamental to learning. We learn from listening. During the course of this unit, it would be well occasionally to ask the child to close his eyes and rest his head on his desk. Make no environmental sounds. Then ask what he heard inside the classroom and outside. Ask him to describe what he heard. It also would be advantageous to ask the children to relate anything new or unusual which they heard away from school.

UNIT II

RELAXATION

One cannot over-emphasize the importance of relaxation. All of us have experienced the futility of attempting a task with muscles taut and our emotions overly stimulated. Whether we are writing a test or swinging an axe, we are not efficient unless we are relaxed. Speech production requires both physical and mental effort. The necessity for relaxation is apparent.

The attitude in the classroom is fundamental to relaxation, and it is the teacher's responsibility to provide an emotionally healthy atmosphere which is conducive to relaxation and learning. The following are a few suggested techniques for helping young children achieve relaxation. Effectiveness of these techniques, however, depends upon the attitude of the teacher. She too must be relaxed. At home it is also vital to provide a relaxed, happy environment. Accept the child for himself. Be interested in what he has to tell you and less demanding as to how he says it.

Sleepy Time – As the children sit at their desks, suggest that they are very tired. Have them yawn; encourage them to give a big yawn. Have them raise their arms above their heads. First the right arm falls asleep and falls limply to the side. Then the left arm goes to sleep and is dropped limply to the side. The eyes are heavy; the lids droop and slowly the head becomes so heavy that it drops to the desk.

Rag Doll – The children stand pretending that they are rag dolls. Rag dolls never stand erect. The little rag dolls pretend that someone is shaking the stuffing loose and slowly they slump to the floor. This game is best played to the accompaniment of vigorous music while the children shake. The music gradually becomes slower and slower until it stops as the children lie slumped on the floor.

Flowers – Have the children sit on the floor pretending they are flowers. Choose one child to be the sun and another the wind. Have the sun and the wind hide behind the teacher's desk. When the sun is hiding, the flowers slump forward, but when the sun is shining, they sit erect. Have the wind blow, saying: "Woo-oo-oo," and have the flowers rock gently from side to side.

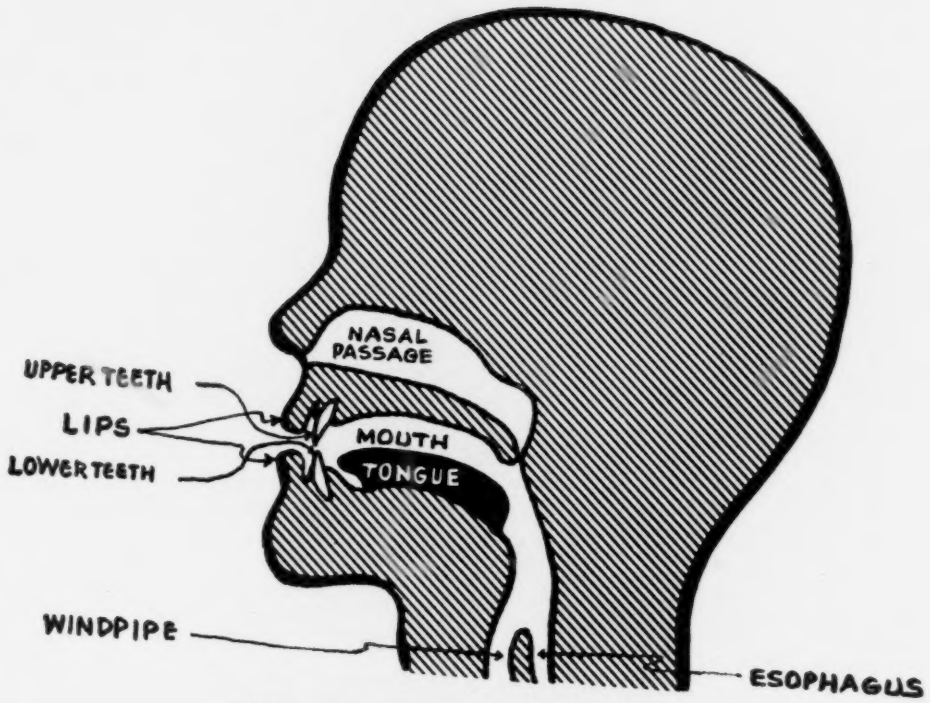
USE OF MUSIC

"Music hath charms . . ." Grandmother's simple melodies hummed to the accompaniment of a creaking rocking chair are most effective in producing a peaceful sleep. Somehow each of us becomes an artist, brilliantly combining colors, deftly using the brush of imagination to paint dreams under the stimulating spell of music.

ERIC

To achieve relaxation, allow the children to lie on soft cots, or if these are not available, have them sit at their desks in a relaxed attitude and position. Play soft soothing melodies and ask the children to dream about what the music is saying. Have each child come to the front of the room and tell about his dream. Suggested melodies are the following:

1. "Valse Triste"
2. "Pavane for a Dying Princess"
3. "Nutcracker Suite"
4. "Afternoon of a Faun"
5. "Spring Song"
6. "Peer Gynt Suite"



THE SPEECH MECHANISM

UNIT III

THE SPEECH MECHANISM

Every first grade teacher has the experience each year of children entering school with marked oral inaccuracy. The children are going to "tool" instead of to school and the dog they read about is "Pot," not Spot. By the end of the first semester, those children who are not speech defective, but who are yet learning how to talk will have improved their articulation and their total speech effort. We wish to indicate here again that there are articulatory speech defective children in the first grade, but **not every child with inaccurate speech in the first grade is speech defective.** The articulatory speech defective, however, usually has a more marked substitution pattern. Generally he is the child who shows very little speech improvement by virtue of his school experience. Certainly, in a speech improvement plan as suggested in this handbook, articulatory defective children can be identified by the teacher.

Up to this point, we have concerned ourselves with non-verbal sounds. We now focus our attention on verbal sounds. Preliminary to verbal sound production, we wish to introduce to the child the speech mechanism. The following is a sample presentation of this unit:

"What part of our body do we use to see?"

"What part of our body do we use to smell?"

"What part of our body do we use to taste?" – tongue – "Let's taste something good."

"What part of our body do we use to smile?" – lips – "Let's all give a big smile."

"What part of our body do we use to chew?" – teeth – "Let's chew a big piece of cake." – "And these teeth are held by the upper and lower jaws."

"Well, what do we use to talk?"

mouth { lips, tongue, jaws, teeth } same as smile, taste, chew

And the voice –

"Where is our voice box?" Here, instruct the child to feel his larynx as he says "ah." "Can you feel your 'speech motor'? Sometimes the motor runs so quietly that we cannot hear it – (h) sound; and sometimes we can hear it – (ah) sound. When the motor makes a noise, that sound goes into your mouth and by using your tongue, lips, teeth, and jaws, you make it into different sounds."

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(Use a mirror here so the child can observe the articular movements.) "Let's say 'ah' with our mouths wide open. Now we'll start to chew that 'ah' sound and we make a new sound: 'ja,' 'ja,' 'ja,' 'ja.' That time we used our jaws, didn't we?"

"Now, let's say 'ah' again and this time we'll close our lips like we're smiling. Now we have another sound: 'ahm,' 'ahm,' 'ahm.' "

"Now, let's make the 'ah' sound again with our mouths wide open. This time we'll use our tongue. Let's pretend we have some peanut butter stuck behind our upper teeth (point behind upper central incisors). We're going to lick it down with our tongue. Now we have another sound: 'ahl,' 'la,' 'la,' 'la.' "

"We have seen how we make different sounds, haven't we? Our speech motor makes a noise which goes into our mouth and then by using the tongue, lips, teeth, and jaws, we make different sounds. We saw in the mirror how the tongue, lips, teeth, and jaws make these different sounds. But how do you suppose our speech motor works? We can't see that motor although we can feel it. Let's all feel our speech motor again as we say 'ah,' 'oh,' 'ee,' 'ahm.' Put one hand in front of your mouth this time while we say 'ah,' 'oh,' 'ee,' 'ahm.' Did you feel something coming out of your mouth? What was it? It was air, wasn't it? It takes air to make that speech motor run. Where do we get the air to make that motor run? From our breathing, don't we? First we take the air in and fill up our lungs. Then we let it out. Let's all take a deep breath and then let it out. The air can go through the nose or through the mouth (demonstrate and have children imitate). When we are not using the speech motor, we generally breathe through our nose. This is a healthy way to breathe. But when we want to use that speech motor, we let the air come out of the mouth because the sound must get into our mouth so we can change it by using the tongue, lips – and what else do we use? That's right, the tongue, lips, teeth, and jaws."

"Tomorrow we will play some games using our speech motor and the tongue, lips, teeth, and jaws."

The following exercises and games are used to stimulate increased awareness of the role of the articulators in speech production. They are also effective in achieving greater mobility.

EXERCISES FOR THE LIPS

1. Pucker the lips and suddenly smile.
2. Say "ee" and then "oo" in rapid succession.
3. Curl the lower lip downward.
4. Lift the upper lip by wrinkling the nose.
5. Make the lips vibrate while imitating the sound an airplane makes.
6. Purse the lips – release and say "bah." Repeat using "bee," "boo," "boh." Repeat using "pah," "pee," "poo," "poh."

EXERCISES FOR THE TONGUE

1. Use the tongue as a broom and vigorously sweep down the ceiling (roof of mouth), walls (sides of mouth), floor (bottom of mouth cavity), and then push the dirt out of the door (lips).

2. Use the tongue as a toothbrush and brush both sides of teeth, while the lips are closed.

3. Imitate a cat lapping milk.

4. Have the child alternately poke tip of tongue into left and right cheek as you count.

5. Have the child repeat the "t" sound, noting position of tongue against upper gum ridge. Repeat, using vowel sounds with the "t" sound.

EXERCISES FOR THE JAWS

1. Have the child imitate a cow chewing.

2. Chew in time to music or a rhythmic pattern.

3. Have the child pull his jaw to the left and right alternately as you count.

4. Have the child repeat the "y" sound accompanied by the various vowel sounds – "yah," "yee," "yoo" etc.

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UNIT IV

ARTICULATORY DEFECTS

I. Definitions

A. Articulation is the art of uttering distinct or separate syllables of speech or the ability to move from one sound to another. The lips, tongue, and oral muscles are involved.

B. An articulatory defect exists when a person, for one reason or another, is unable to produce consistently and effortlessly the ordinary sound patterns of speech. Seventy-five per cent of all speech defects are articulatory.

C. Articulators are the movable speech organs. They include the lips, tongue, teeth, upper teeth ridge, hard palate, velum, and lower jaw.

II. Types of articulatory defects

A. Substitution

1. This is the making of one sound for another and may occur at the beginning, in the middle, or at the end of a word.
Examples:

"Weave me awone." ("w" for "l")

"I thwew a wock at the wabbit." ("w" for "r")

2. Substitutions are frequently inconsistent, as a child may substitute for some sound another that he can produce easily and then substitute this easily produced sound for still a third one.

3. Many substitutions occur in the speech of a small child and fewer in older children and adults.

4. Both the number of children who make errors and the number of errors per child tend to drop markedly through the first three or four grades.

a. This does not mean that speech correction is unnecessary, for many of these children are clearly handicapped by their speech defects.

b. The longer they go without help, the more difficult it will be for them to attain or approximate correct speech.

5. On the secondary level, the majority of sound substitution cases involve the sounds "s," "z," "r," and "l."

B. Omission

1. This occurs when consonants are omitted. Usually a consonant occurring as the final sound is more likely to be omitted than is the same consonant when it occurs at the beginning or in the middle of the word. However, it may occur in all three positions.
2. Since there is no conflicting sound, omission is the type of articulation defect most easily corrected.
3. Very young children sometimes substitute a peculiar stoppage of breath for certain consonants.
   Example:
   "Me ta, 'Datty duh littuh tittuh a o'" for "Me say, 'Jacky got a little sister at home.'"

C. Distortion

1. This occurs when the individual only approximates the normal sound.
2. One of the most commonly distorted sounds is "s." It may be too hissing, have a whistling effect, or sound mushy. "Z," "ch" and "sh" are also frequently distorted.
3. Children may occasionally distort the normal rhythm of speech and in so doing disturb articulation.

III. Causes of articulatory defects

A. Physical causes

1. Loss of hearing.
   a. The child must be able to hear sounds in the critical range of frequencies essential for speech. He may hear sounds and still not hear the pattern of connected speech.
   b. The receptive mechanism may be intact but the areas for retention of sounds may be imperfect.
2. Impaired function of articulators.
   a. The tongue may be paralyzed or semi-paralyzed.
   b. The tongue may be too large or small for lower jaw.
   c. The tongue may be too flabby or non-coordinated in muscular response.
   d. The frenum which binds the tongue to floor of mouth may be too short.
   e. The teeth may be so irregular or occluded that sounds are distorted.
   f. The top of the palate may be too high for the tongue to reach it properly.
   g. Palate may be soft or cleft.
   h. A cleft lip may exist.
   i. Illness attended by a high fever in infancy, especially during the normal period of speech development, may not have its effect

immediately. It may become apparent gradually, however, that the child's speech, which had been progressing normally before, has received a serious setback.

j. Delayed physical development may cause delayed speech.

k. Glandular deficiency or disorganization may affect speech development.

B. Functional explanations

1. Intellectual.

a. An individual with an intelligence quotient less than seventy will probably have poor speech patterns. The low I. Q. will at least cause him to develop his speech patterns more slowly than the norm.

b. Care must be taken, however, not to jump to the conclusion that poor speech patterns necessarily indicate a low I. Q.

2. Environmental.

a. The child may have imitated poor speech patterns of some member of his family.

b. The child may have a lack of proper stimulation and motivation.

(1) Wishes may be granted without the necessity of speech.

(2) Twins may develop their own language and thus not feel the need of communication with other people.

(3) The child may have been corrected so often that he is now hesitant to try to speak.

3. Emotional.

a. The child may use "baby talk" to get attention.

b. He may have had an emotional involvement as he was learning to talk.

c. He may have strong sibling rivalry.

d. He may have had a traumatic experience; however, this situation is much rarer than would be imagined.

e. Other causes would include:

(1) Insecurity.

(2) Pressure.

(3) Ridicule.

HELPING THE CHILD TOWARD BETTER SPEECH

A child in your grade says: "Wook at da wady twossing da tweet," for "look at the lady crossing the street." It is evident that he substitutes the "w" sound for "l" and "r." He substitutes "d" for "th" and "t" for "k." He also omits the "s" in the consonant blend "str." A suggested procedure to follow would be:

(1) Examine the mouth for missing teeth, mobility of the tongue, flexibility of the jaws, and elasticity of the lips.

(2) Give a diagnostic test for sounds. Indicate which are omitted, substituted, etc. A form for this is found on page 22.

(3) In the event that you find marked inactivity in the tongue, lips, etc., give the exercises which will be suggested.

(4) Teach one sound at a time. Never teach a new sound until the old one has already been learned. Concentrate on one sound. Remember that concentration is **not synonymous with nagging.** Remember, too, that habits are not easily broken and you are confronted with the problem of breaking the habit of faulty production of a sound and developing the habit of proper production. In any learning situation, it takes time to effect "carry-over" **so do not be disappointed if the child uses "w" for "l" even though in his practice periods he says lady, light, lay, etc.** An occasional gentle reminder will go a long way in effecting permanent carry-over.

(5) Most often children with articulatory speech problems do not recognize their speech inaccuracies even though they readily recognize the same error made by another. For example, the articulatory defective will recognize your error if you say "wady" for "lady." However, when he says "wady" he feels that he has said it correctly. This is the phenomenon of self-discrimination. The child must be given sufficient ear training to recognize his own error before the correct sound can be taught. He must realize that he is saying "wady" before he is taught to say "lady."

(6) Teach the consonant blends after child has learned the individual consonant sounds. Show him that the blend is a combination of the individual consonant sounds. Again we emphasize the word SOUND. In speech we are not concerned with the letter. In other words, for purposes of speech "f" is not "eff" but rather the fricative sound that is produced by forcing the air between the upper teeth and lower lip as upper teeth and lower lip are held in light contact.

TEACHING THE INDIVIDUAL SOUNDS

For the sake of brevity which this handbook imposes, suggestions for teaching only those sounds often omitted or substituted will be given. These will be merely sample lesson plans. The ingenuity of each individual teacher and parent will suggest variations for incorporating the lessons into a conversational situation, which is the ideal medium for speech therapy.

TESTING TO IDENTIFY SPEECH ERRORS

Most speech sounds appear in three positions in words. For example, "V" appears at the beginning of a word (initial) as in "Very"; in the middle of a word (medial) as in "neVer"; and at the end of a word (final) as in "saVe." The sounds must be tested in each position because many times a child may use a sound faultily in one position and correctly in others.

DIAGNOSTIC SPEECH TEST

		Initial	Medial	Final			Initial	Medial	Final			Initial	Medial	Final
1	p				10	t				19	s			
2	b				11	d				20	z			
3	m				12	n				21	sh			
4	wh				13	(c) k				22	zh			
5	w				14	g				23	(ch) tsh			
6	f				15	ng				24	(j) dzh			
7	v				16	h				25	y			
8	u.v. th				17	l								
9	v. th				18	r								

1. tw _____ 11. tl _____ 21. str _____ 31. ls _____ 41. ngz _____
2. dw _____ 12. zl _____ 22. tr _____ 32. ns _____ 42. thz _____
3. bl _____ 13. br _____ 23. thr _____ 33. ps _____ 43. mz _____
4. kl _____ 14. kr _____ 24. sk _____ 34. ts _____ 44. vz _____
5. fl _____ 15. dr _____ 25. sm _____ 35. sts _____ 45. lk _____
6. gl _____ 16. fr _____ 26. sn _____ 36. ths _____ 46. kw _____
7. pl _____ 17. gr _____ 27. sp _____ 37. lz _____ 47. skw _____
8. sl _____ 18. pr _____ 28. st _____ 38. dz _____ 48. ks _____
9. spl _____ 19. skr _____ 29. sw _____ 39. bz _____ 49. gz _____
10. dl _____ 20. spr _____ 30. fs _____ 40. nz _____

Legend:

S – Substitution VE – Voicing Error D – Distortion
SL – Slighting O – Omission

Remarks:
u.v. – unvoiced
v. – voiced

22

EXPLANATION OF SYMBOLS OF DIAGNOSTIC SPEECH TEST

Symbol	Keywords	Symbol	Keywords
1. p	pa, puppy, pup	14. g	girl, wagon, dog
2. b	boy, baby, rub	15. ng	hanger, sing
3. m	man, summer, comb	16. h	house, ahead
4. wh	white, pinwheel	17. l	lady, family, tell
5. w	window, awake	18. r	red, story, car
6. f	farm, coffee, wife	19. s	soup, sissy, miss
7. v	very, river, love	20. z	zoo, busy, bees
8. th(u.v.)	think, nothing, truth	21. sh	she, washing, dish
9. th(v.)	those, mother, bathe	22. zh	pleasure, garage
10. t	tell, letter, cat	23. tsh	child, teacher, speech
11. d	dog, candy, bad	24. dzh	June, magic, George
12. n	night, many, moon	25. y	yellow, onion
13. k	cup, basket, book		

Symbol	Keyword	Symbol	Keyword	Symbol	Keyword
1. tw	twin	18. pr	pray	35. sts	tests
2. dw	dwell	19. skr	scribble	36. ths	months
3. bl	blue	20. spr	sprinkle	37. lz	balls
4. kl	climb	21. str	string	38. dz	reads
5. fl	fly	22. tr	try	39. bz	tubs
6. gl	glue	23. thr	three	40. nz	pans
7. pl	play	24. sk	skill	41. ngz	songs
8. sl	slide	25. sm	small	42. thz	clother
9. spl	split	26. sn	snail	43. mz	homes
10. dl	bundle	27. sp	spill	44. lk	milk
11. tl	turtle	28. st	stand	45. vz	lives
12. zl	puzzle	29. sw	swim	46. kw	quick
13. br	brown	30. fs	laughs	47. skw	squirrel
14. kr	creep	31. ls	else	48. ks	packs
15. dr	dry	32. ns	once	49. gz	eggs
16. fr	fry	33. ps	pipes		
17. gr	green	34. ts	sits		

23

S-A-M-P-L-E

DIAGNOSTIC SPEECH TEST

FOR

ARTICULATORY DEFECTS

		Initial	Medial	Final			Initial	Medial	Final			Initial	Medial	Final
1	p				10	t				19	s			O
2	b				11	d				20	z			
3	m				12	n				21	sh			
4	wh				13	(c) k	S t		O	22	zh			
5	w				14	g				23	(ch) tsh			
6	f	S p	S p	S p	15	ng				24	dzh (j)			
7	v				16	h				25	y			
8	u.v. th	S f	S t	S f	17	l								
9	v. th				18	r								

1. tw ____ 11. tl ____ 21. str ____ 31. ls __x__ 41. ngz __x__
2. dw ____ 12. zl ____ 22. tr ____ 32. ns __x__ 42. thz __x__
3. bl ____ 13. br ____ 23. thr __x__ 33. ps __x__ 43. mz __x__
4. kl __x__ 14. kr __x__ 24. sk __x__ 34. ts __x__ 44. vz __x__
5. fl ____ 15. dr ____ 25. sm ____ 35. sts __x__ 45. lk ____
6. gl ____ 16. fr ____ 26. sn ____ 36. ths __x__ 46. kw ____
7. pl ____ 17. gr ____ 27. sp ____ 37. lz __x__ 47. skw __x__
8. sl ____ 18. pr ____ 28. st ____ 38. dz __x__ 48. ks __x__
9. spl ____ 19. skr __x__ 29. sw ____ 39. bz __x__ 49. gz ____
10. dl ____ 20. spr ____ 30. fs __x__ 40. nz __x__

Legend:

S — Substitution VE — Voicing Error D — Distortion
SL — Slighting O — Omission

Remarks:

u.v. — unvoiced

v. — voiced

EXPLANATION OF THE SAMPLE SPEECH TEST

The results of the preceding speech test indicate a child with an articulation problem. He substitutes the sound of (p) for the sound of (f) at the beginning, the end, and in the middle of words. He substitutes the sound of (f) for the unvoiced (th) sound at the beginning and end of words, and the sound of (t) for an unvoiced (th) sound in the middle of words. He substitutes the sound of (t) for the (k) sound in the middle of words and omits the (k) sound on the end of words. He also omits a final (s) sound. Since these simple consonants are defective, the blends containing them are also defective; i.e., kl, kr, skr, sk, thr, etc.

DEVELOPMENT OF SPEECH*

Chronological Age	Average Sentence Length	Number of Words	Sounds the Child Can Say
3.5	4.3	1222	p, b, m, w, h
4	4.4	1540	
4.5	4.6	1870	t, d, n, g, k, ng, j, y
5.5	4.6	2289	f
6.5	5.3	2500 – 4000	v, th(voiced) sh, l, ch
7.5			r, s, th(voiceless) z, wh

Boys are usually a little slower than girls.

Speech development depends on the child's mental ability, his environment, and his adjustment.

*From a chart developed by THE ATLANTA SPEECH SCHOOL.

HELPFUL SUGGESTIONS FOR TEACHING INDIVIDUAL SOUNDS

In this unit we are directing our attention to the production of specific sounds. Each sound will be introduced by a schematic drawing depicting the position of the articulators for that specific sound and step-by-step directions for its production. It is important to remember that this material is presented as an adjunct to the instruction in phonics and is not intended as a substitute. Drill material and procedures will be suggested for those sounds which most often present difficulty to the child learning to talk. The objective of the exercise "The following words rhyme – How are they different?" is to develop a discriminatory awareness between a specific sound and the sound most often used as a substitute. In the rhyming activity, sameness is stressed. In this specific exercise, the difference despite the rhyme is emphasized. For example, in the rhyming pair – face-pace – the difference exists between the sounds "p" and "f." This discriminatory awareness is vital to good speech production and much attention should be directed toward it. An effective technique using rhymed pairs would be the following: "Are these words the same or different?

face-face

face-pace

pace-face

pace-pace."

The phonic concept is one of sound and not the name of a letter. Consequently when we speak of the "p" sound, we are not concerned with the name of that specific character but rather with the sound it has as it is used in words. When we refer to a voiced sound, we mean to indicate that the vocal chords vibrate in the production of the sound. The child can feel his speech motor. When we refer to an unvoiced sound, we mean to indicate that the vocal chords do not vibrate. The child cannot feel his speech motor. We must also be aware that many of the sounds appear in three different positions in various words, and the child must learn to identify the sound regardless of its position in a word.

Procedure:

1. Correct the defective sounds in the order the child develops them normally. (See Development of Speech Chart, page 25.)
2. After basic sounds are learned, correct the defective consonant blends.

Method of teaching:

1. Make sure the child hears the sound. He must be able to differentiate the sound from the sound he habitually uses.
2. Show him how you make the sound.
3. Have him look in a mirror as he attempts to produce the sound.
4. Let him produce the sound in isolation; i.e., t-t-t-t.
5. Use it in nonsense syllables; i.e., tay, ta.
6. Use it in words; i.e., toy, Tom, bat, butter, etc. Use picture cards to elicit responses.
7. Use the sound in sentences which are loaded with it; i.e., Tom went to town to get butter for Tim's mother.

27

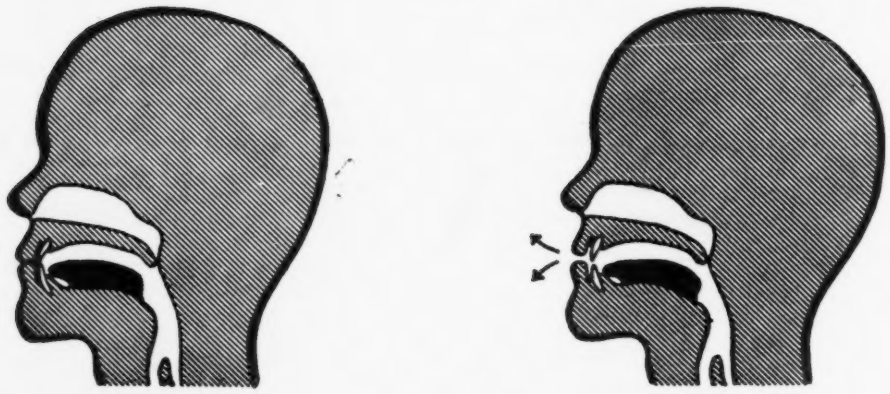
AN EXPLANATION OF THE PRODUCTION

OF EACH SOUND

AND

SUGGESTED DRILL MATERIALS

P



a - b **c**

Method of Production

a. Keep lips closed.
b. Build up air pressure (no voice) behind closed lips.
c. Air is exploded as lips are parted.

It may be of help to have the child hold a tiny piece of paper on the flat of his hand in front of his mouth. If he says "p" correctly, the paper will blow off his hand.

The following words rhyme. How are they different?

pie-by	pen-been
pay-bay	pole-bowl
push-bush	pat-bat

1. Mother makes good apple _____. (pie)
2. A little dog is called a _____. (puppy)
3. Daddy likes to smoke his _____. (pipe)

Suggested drill sentence: Put the peach pie on the table.

Suggested poem:

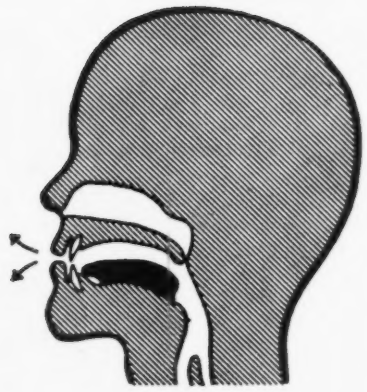
Peter, Peter, pumpkin eater,
Had a wife and couldn't keep her,
He put her in a pumpkin shell,
And there he kept her very well.

Mother Goose

928

B

a - b



c

Method of Production

a. Keep lips closed.

b. Build up air pressure (voiced) behind closed lips.

c. Voiced air is exploded as lips are parted.

A "b" is a voiced "p."

These words rhyme. How are they different?

bee-pea	bit-pit
beet-Pete	back-pack

1. Jane is a girl; Bobby is a _____. (boy)
2. When Jane and Bobby were very little, they were called _____. (babies)
3. We take a bath in the bath _____. (tub)

Suggested drill sentence: The boys bought books about baseball.

Suggested poem:

Bye baby bunting,
Daddy's gone a hunting,
To find a pretty rabbit skin,
To wrap his baby bunting in.

Mother Goose

829

M

Method of Production

a. Keep lips closed.

b. Voiced air is directed through the nose. (Have children place their fingers on their nose to feel the vibration.)

Often the child will produce the sound correctly if he is asked to hum.

Discrimination between p-b-m. How are these words different?

pie-by-my	pen-been-men
pay-bay-may	pat-bat-mat
pa-bah-ma	

1. Mother is a lady; daddy is a _____. (man)
2. Sometimes we call mother _____. (mama)
3. We have five fingers on one hand, but one of them is a _____. (thumb)

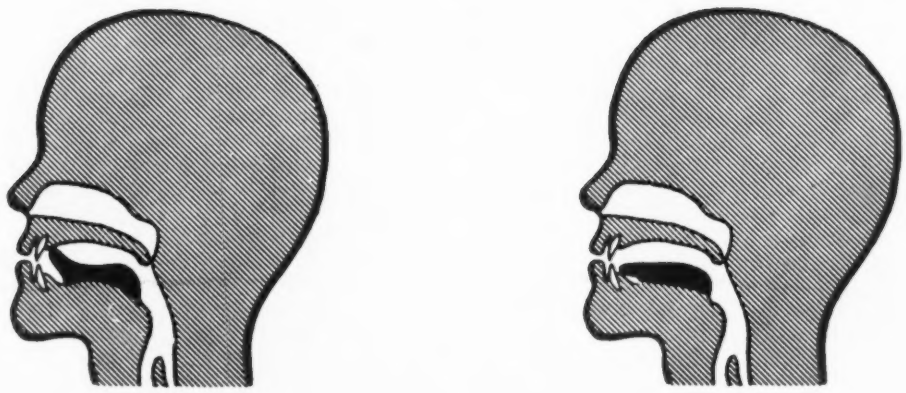
Suggested drill sentence: The man made noise with his hammer.

Suggested poem:

To market, to market, to buy a
fat pig,

Home again, home again, jig-a-
dy-jig.

T



a - b - c d

Method of Production

a. Put the tip of the tongue against the gum ridge behind the upper teeth.

b. Sides of tongue are in contact with the sides of the upper teeth.

c. Build up air pressure (unvoiced) behind tongue.

d. Drop tongue suddenly, thus releasing the air with an explosive sound.

The following words rhyme. How are they different?

to – do	tame – dame
tie – die	time – dime
tear – dear	tare – dare

1. What number comes after one? ..... (two)
2. We put ..... (butter) on our bread.
3. When we play ball, we hit the ball with a ..... (bat)

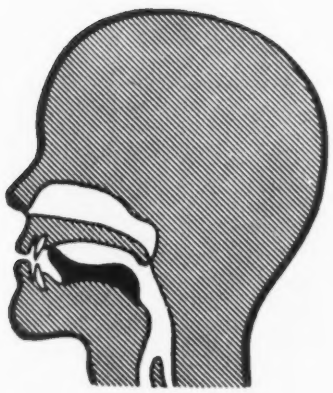
Suggested drill sentence: Take two toys to your table.

Suggested poem:

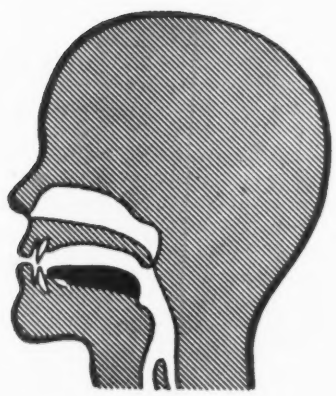
Good night,
Sleep tight,
Wake up bright,
In the morning light,
To do what's right
With all your might.

Old Saying

D



a - b - c



d

Method of Production

a. Place the tip of the tongue against the gum ridge behind the upper teeth.
b. Sides of tongue are in contact with sides of the upper teeth.
c. Build up air pressure (voiced) behind tongue.
d. Drop tongue suddenly thus releasing the air with an explosive sound.

A "d" is a voiced "t."

Discriminating between "t" and "d." How are these words different?

dough – toe	door – tore	done – ton
do – two	duck – tuck	dry – try

1. The moon shines at night; the sun shines during the ..... (day)
2. To row a boat we must use a ..... (paddle)
3. The opposite of hot is cold. The opposite of good is ..... (bad)

Suggested drill sentence: I didn't tell Tom that Tim took the daughter to the dance.

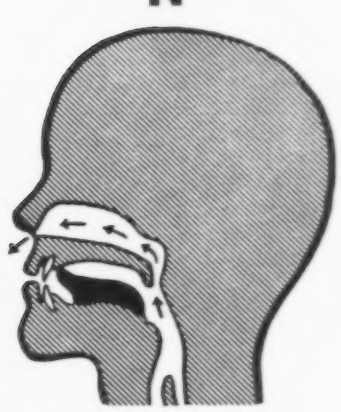
Suggested poem:

Diddle, diddle, dumpling,
My son John,
Went to bed with his stockings on;
One shoe off,
And one shoe on,
Diddle, diddle, dumpling,
My son John.

Mother Goose

ES2

N



Method of Production

a. Put the tip of the tongue against the gum ridge behind the upper teeth.

b. Sides of the tongue are in contact with the sides of the upper teeth.

c. Permit voiced sound to go through the nose (have the children place their fingers on their noses to feel the vibration).

Discrimination between "t-d-n." How are these words different?

to – do – new	tot – dot – not
tame – dame – name	toe – no – dough

1. Stars shine in the sky at _____. (night)
2. When we read a story we start at the _____. (beginning)
3. When Daddy goes hunting he takes his _____. (gun)

Suggested drill sentence: Nancy has a new penny.

Suggested poem:

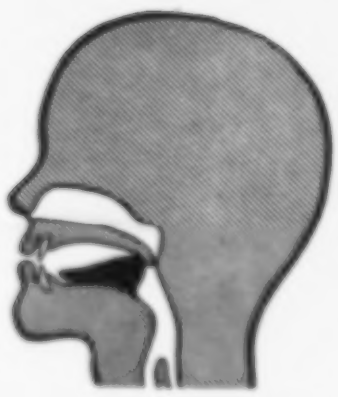
Mix a pancake,
Stir a pancake,
Pop it in the pan;

Fry the pancake,
Toss the pancake,
Catch it if you can.

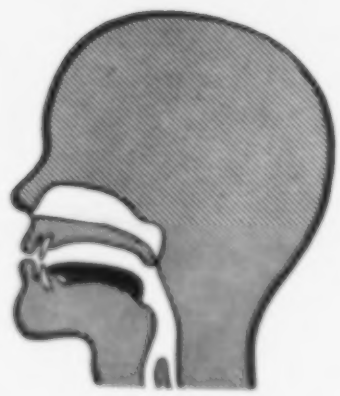
C. Rossetti

S83

K-C



a - b



c

Method of Production

a. Raise the back of the tongue and keep the tip of the tongue low.

b. Build up air pressure (unvoiced) behind back of tongue.

c. Drop tongue quickly thus releasing the air with an explosive sound.

The following words rhyme. How are they different?

can – tan	car – tar
cake – take	came – tame
cold – told	key – tea
call – tall	kick – tick
kill – till	cap – tap

1. We get our milk from the _____ (cow)
2. I carry my handkerchief in my _____ (pocket)
3. I like to watch mother _____ (bake) a cake.

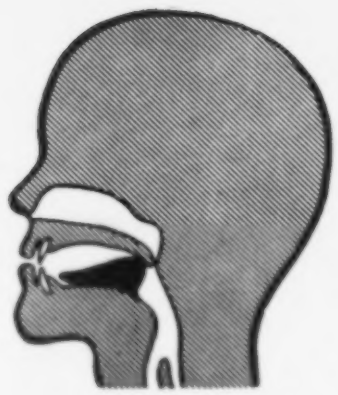
Suggested drill sentence: If you tell me you are coming, I can bake a cake and perhaps some cookies too.

Suggested poem:

Kate made some cookies
For Kitty and me
And then put the cooky jar
High as could be!
The stool tumbled over –
Why couldn't Kate see
'Twas certain to happen
To Kitty and me?

J. B. T.

G



a - b

c

Method of Production

a. Raise the back of the tongue and keep the tip of the tongue low.

b. Build up air pressure (voiced) behind back of tongue.

c. Drop tongue quickly thus releasing the air with an explosive sound.

The following words rhyme. How are they different?

go – dough	gave – Dave
game – dame	guy – die
gum – dumb	gay – day
got – dot	gun – done

1. Jack is a boy; Jill is a _____. (girl)
2. On the farm I like to ride in a _____ (wagon) pulled by a mule.
3. Did you hear the _____ (dog) bark?

Suggested drill sentence: The bag got bigger and bigger until it began to burst.

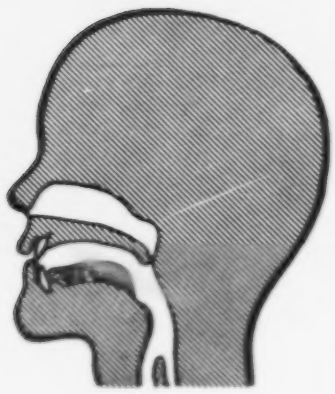
Suggested poem:

Little girl, little girl, where have you been?
Gathering roses to give to the Queen.
Little girl, little girl, what gave she you?
She gave me a diamond as big as my shoe.

Mother Goose

35

F



Method of Production

a. Place cutting edges of upper teeth on the lower lip.

b. Emit a stream of air (no voice) between this closure.

The following words rhyme. How are they different?

fun – pun	fair – pair
four – pour	face – pace
fine – pine	feel – peel
fan – pan	fool – pool
fop – pop	fast – past

1. Cows and chickens are raised on a _____. (farm)
2. Mother puts cream in her _____. (coffee)
3. When I eat, I use a spoon, fork, and _____. (knife)

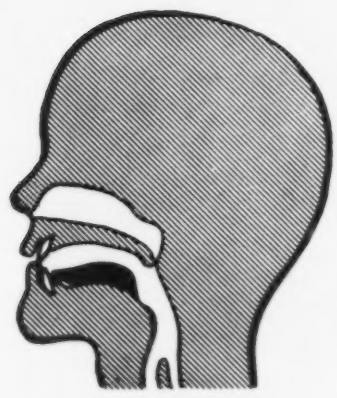
Suggested drill sentence: Fanny Farmer feels that the best life is on the farm.

Suggested poem:

I wonder if the fireflies
Are baby stars that fall,
And come to make the lonely earth
A friendly little call.

Helen Virginia

V



Method of Production

a. Place cutting edges of upper teeth on the lower lip.

b. Emit a stream of air (voiced) between this closure.

A "v" is a voiced "f."

The following words rhyme. How are they different?

very – berry vase – base

Discrimination between "f-v."

face – vase fast – vast
fine – vine feel – veal
fat – vat

1. Mother puts the flowers in a _____. (vase)
2. "Jesus _____ (loves) me. This I know."
3. Mother _____ (gave) me my lunch money today.

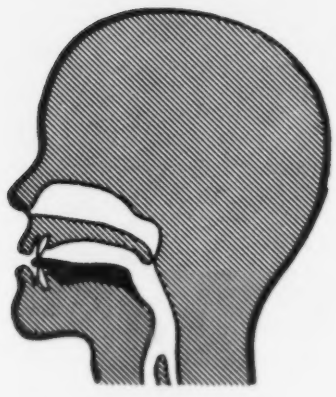
Suggested drill sentence: "I think this very fine vine will be safe on the river bank," said Vernon's wife.

Suggested poem:

As I was going to St. Ives
I met a man with seven wives,
Each wife had seven sacks,
Each sack had seven cats,
Each cat had seven kits,
Kits, cats, sacks and wives,
How many were going to St. Ives?

Old Rime

TH



(unvoiced)

Method of Production

a. Keep the lips parted.

b. Place the tip of the tongue between the upper and lower teeth.

c. Emit a stream of air (unvoiced) through this closure.

The following words rhyme. How are they different?

think – pink　　thing – ting

thought – fought　　thank – sank

1. When someone gives us candy we say, _____. (thank you)
2. Another word that ends like something is the word any- _____. (thing)
3. We brush our _____ (teeth) with a toothbrush.

Suggested drill sentence: I think nothing is finer than the weather we are having this month.

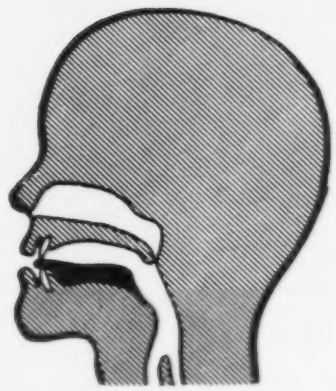
Suggested poem:

Thirty thousand thoughtless boys
Thought they'd make a thundery noise;
So with thirty thousand thumbs,
They thumped on thirty thousand drums.

Unknown

38

TH



(voiced)

Method of Production

a. Keep the lips parted.

b. Place the tip of the tongue between the upper and lower teeth.

c. Emit a stream of air (voiced) between this closure.

The following words rhyme. How are they different?

then – den	they – day
there – dare	those – doze

1. Many times, we point and say, _____ (there) it is.
2. When the sun is shining, we have good _____. (weather)
3. In order to get air into our lungs, we must _____. (breathe)

Suggested drill sentence: This morning my mother and father went to the beach, which is farther away than the mountains.

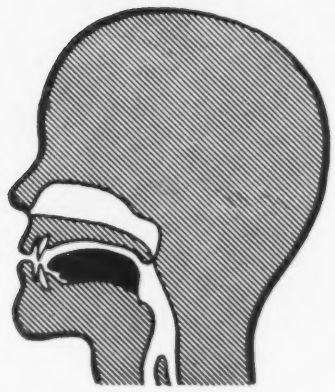
Suggested poem:

Mother and father and I make three.
We are as happy as we can be.
Then there is sister who is but one;
Now the four of us have fun.

Unknown

39

SH



Method of Production

a. Protrude the lips as if you are going to whistle. (They are rounded).

b. Place the tongue in tight contact with the sides of the upper teeth. Keep the tip of the tongue low.

c. Project a steady stream of air (unvoiced) through the opening.

The following words rhyme. How are they different?

shoe – too	ship – tip
shame – tame	shake – take
show – toe	shook – took
she – tea	shell – tell
shop – top	shape – tape

1. We wear _____ (shoes) on our feet.
2. It is healthy to play in the sun- _____. (shine)
3. We catch _____ (fish) with a pole and line.

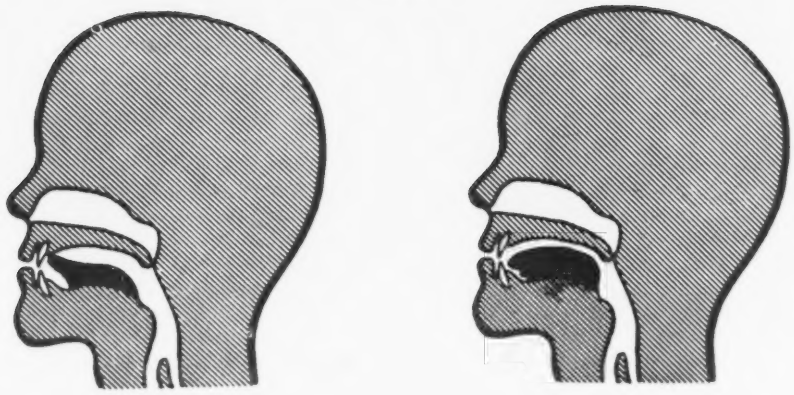
Suggested drill sentence: She took her shoes to the shoe shop to have them repaired.

Suggested poem:

There was an Old Woman
Who lived in a shoe;
She had so many children
She didn't know what to do.

English Rhyme

CH



a - b c

Method of Production

a. Place the tip of the tongue against the gum ridge of the upper teeth with the sides of the tongue in tight contact with the sides of the teeth.

b. Build up air pressure (unvoiced).

c. Drop the tip of the tongue quickly and move it back slightly and downward in the position for *Sh* thus emitting a continued stream of air (unvoiced).

Often asking the child to lightly sneeze or to make a train sound will help him easily produce the ch sound.

The following words rhyme. How are they different?

chair – share	chip – ship
chew – shoe	cheat – sheet
chop – shop	cheap – sheep
cheese – tease	chew – to
chin – tin	cheer – tear
chair – tare	chest – test

1. Grandmother was rocking in the rocking- ..... (chair)
2. Our ..... (teacher) helps us to learn to read and speak.
3. Sunday is the day to go to Sunday School and ..... (church)

Suggested drill sentence: Charles may choose the children for the game.

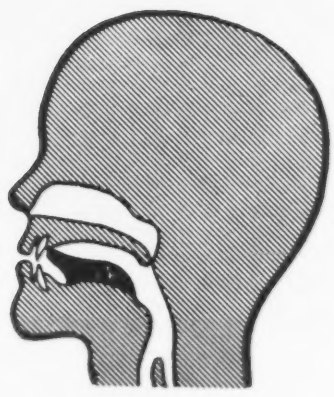
Suggested poem:

Three little chicks
Does my aunt keep;
One jumps;
One pecks;
One sings,
"Cheep, cheep, cheep!"

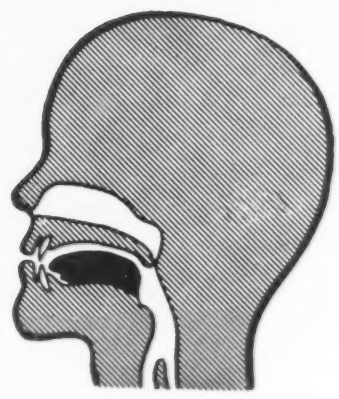
Spanish Nursery Rhyme

041

J



a - b



c

Method of Production

a. Place the tip of the tongue against the gum ridge of the upper teeth with the sides of the tongue in tight contact with the sides of the teeth.

b. Build up air pressure (voiced) behind the tongue.

c. Quickly drop the tip of the tongue moving it back slightly and downward thus emitting a continuous stream of (voiced) air.

The following words rhyme. How are they different?

jump – dump
jeep – deep
jug – dug

jab – dab
Joe – dough

Discrimination between "s-z-sh-ch-j." How are these words different?

so – show – Joe
Sue – zoo – shoe – chew

sip – zip – ship – chip – gyp

1. Little children like to _____ (jump) rope.
2. Policemen and firemen wear _____ (badges) on their uniforms.
3. When we are reading the teacher often says, turn the _____. (page)

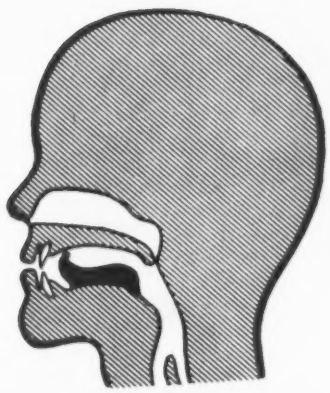
Suggested drill sentence: James has a large jumping-jack.

Suggested poem:

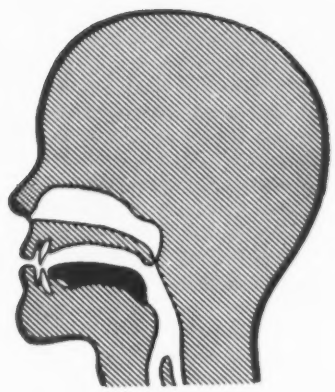
Jack, be nimble,
Jack, be quick;
Jack, jump over
The candlestick!

Mother Goose

L



a



b

Method of Production

a. Place the tip of the tongue against the upper gum ridge with the sides of the tongue wide.

b. Allow voiced air to pass over tongue as it is dropped.

If the child has difficulty keeping his mouth open as he raises his tongue, place a caramel, the child's thumb, or a small block of wood between the back teeth to keep them open. Tongue exercises which help raise and lower the tongue may also help.

The following words rhyme. How are they different?

light – white	lie – why
lay – way	late – wait
lead – weed	let – wet
leap – weep	lip – whip
lest – west	lake – wake

1. When it is dark in a room we turn on the ..... (light)
2. Let us blow up the ..... (balloon) and tie it on a string.
3. Little boys like to play base- ..... (ball)

Suggested drill sentence: May I roll the ball on the lawn, lady?

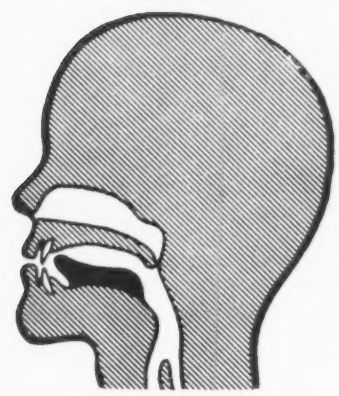
Suggested poem:

Little wind, blow on the hill top;
Little wind, blow down the plain;
Little wind, blow up the sunshine;
Little wind, blow off the rain.

Kate Greenway

43

R



Method of Production

a. Raise the tip of the tongue towards the roof of the mouth curling the tongue slightly.

b. Direct flow of voiced air so that it strikes inverted tongue tip.

The following words rhyme. How are they different?

red – wed	rye – why
right – white	read – weed
ray – way	ride – wide
run – one	round – wound
ring – wing	rest – west

1. The color of most apples is ..... (red)
2. We must always be ..... (careful) when we cross the street.
3. Often on Sundays our family takes a ride in our ..... (car)

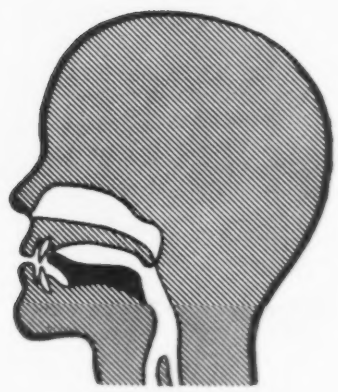
Suggested drill sentence: Did you ever see a red rabbit run around and around a parked car?

Suggested poem:

The rain is raining all around,
It falls on field and tree.
It rains on the umbrella here,
And on the ships at sea.

Robert Louis Stevenson

S



Method of Production

a. Place the teeth together with the lips slightly back.

b. Place the tip of the tongue against the gum ridge of the upper teeth with the sides of the tongue in tight contact with the upper side teeth.

c. Project a steady stream of air (unvoiced) over the cutting edges of the teeth. The air should come out a tiny opening in the center of the tongue.

The following words rhyme. How are they different?

son – ton	same – tame
so – toe	Sue – too
sigh – tie	sin – tin
sip – tip	sick – tick
sale – tail	sent – tent
sell – tell	sack – tack

1. The moon shines at night; the _____ (sun) shines during the day.
2. If we wish to write, we must have paper and a _____. (pencil)
3. Many children ride to school on the school- _____. (bus)

Suggested drill sentence: Sammy sings many nice songs.

Suggested poem:

The stars are tiny daisies high,
Opening and shutting in the sky,
And daisies are the stars below,
Twinkling and sparkling as they grow.

Unknown

You will have noticed that many of the sounds have a correlative as in the case of "s" and "z." This fact can be used to good advantage in the teaching situation. If, for example, a child uses the "z" sound properly but not the "s" sound, show the relationship of this sound to "z." In any learning process, it is well to build the new upon the old.

45

Z

Method of Production

a. Place the teeth together with the lips slightly back.

b. Place the tip of the tongue against the gum ridge of the upper teeth with the sides of the tongue in tight contact with the upper side teeth.

c. Project a steady stream of air (voiced) over the cutting edges of the teeth. The air should come out a tiny opening in the center of the tongue.

The following words rhyme. How are they different?

zoo – do	Zed – dead
zipper – dipper	zip – dip

1. In the city we can find many animals at the zoo _____ (zoo)
2. To cut out pictures we use a pair of _____ (scissors)
3. We get honey from the _____ (bees)

Suggested doll sentence: In the zoo the bees are buzzing around the zebra's head.

Suggested poem:

A swarm of bees in May
Is worth a load of hay.
A swarm of bees in June
Is worth a silver spoon.
A swarm of bees in July
Is not worth a fly.

Old Rime

These sounds are not commonly defective. We will therefore give only a brief description as to how they are produced and a few drill words for each.

1. **Sound: "wh."**

   Method of Production

   a. Raise the back of the tongue placing the tongue tip against lower teeth.

   b. With the teeth slightly parted, round and protrude the lips.

   c. Breathe out as for "h."

The sound is produced as if saying "h" while the lips are formed to make "w" thus (hw).

Drill words: What, where, why, when, which.

2. **Sound: "w."**

   Method of Production

   a. Raise the back of the tongue placing the tongue tip against lower teeth.

   b. With the teeth slightly apart, round and protrude the lips.

   c. Emit a stream of voiced air.

A "w" is a voiced "wh."

Drill words: Way, wagon, we, will, swim, wrist watch, language.

3. **Sound: "ng."**

   Method of Production

   a. Raise the back of the tongue against the soft palate with the tongue tip behind the lower teeth.

   b. With the teeth slightly parted, emit a stream of voiced air through the nasal passages.

Drill words: Long, hang, sing, ring, swing.

4. **Sound: "h."**

   Method of Production

   a. The tongue and lips assume the position of the vowel following the h sound.

   b. The vocal chords are parted.

   c. Emit a continuous stream of unvoiced air.

Drill words: Hat, house, hair, hope, hear, hours.

5. **Sound: "sh."**

   Method of Production

   a. Place the tongue in light contact with the sides of the upper teeth.

   b. Keep the tongue tip low and blunt.

   c. Project a steady stream of voiced air through the opening.

Drill words: Measure, pleasure, television, usual, garage, rouge, massage.

6. Sound: "y."

Method of Production

a. Raise the middle of the tongue with the tip lowered.

b. Part the teeth slightly.

c. Emit voiced air.

This sound can be produced by saying long "e" followed by "a" as in *sofa* in rapid succession.

Drill words: Yes, yellow, year, onion, back yard, million, opinion.

CONSONANT BLENDS

Many times children in the first grade are capable of producing all the consonant sounds and yet have difficulty with consonant blends. They have no difficulty saying "so" or "low" and yet will experience difficulty in saying the word "slow." It would be well to remember that spoken words are much like spelling. The whole is a composite of a series of symbols. The spelling of the word "stop" is a series of characters "ess-tea-oh-pea." The pronunciation of the word "stop" is a series of individual sounds produced as a unified entity. Before instruction in consonantal blends is attempted, therefore, the child must be able to produce the individual sounds contained in the word. To ask a child to pronounce the word "stop" when he does not know the "s" sound is to ask him to spell "stop" when he doesn't know the alphabet symbol "s." In teaching consonantal blends, indicate to the child that the blend is a combination of verbal symbols which he already can produce.

Suggestions for the Classroom Teacher

A. The classroom teacher will be able to help the speech correctionist by acquainting him with the child's response to classroom and play situations.

B. She will also be able to tell him much about the child's home and family situations.

C. The teacher needs a basic understanding of how sounds and their symbols function in the English language.

D. It will help if the teacher has a reasonably pleasant voice and good articulation herself.

E. She will help the child by understanding his difficulties, by encouraging him to self-expression, and by not being unduly critical of his failures.

F. She will also help to reassure the child as to his importance as an individual.

G. She will encourage him to participate in other activities where he will have a greater opportunity to be successful.

H. She will at all times remember that the child is a "complete personality" and not just a "case for speech correction."

Suggestions for the Parents

A. The parents in turn must love their child for himself, not reject him for his speech difficulties.

B. They must be understanding of his problems.

C. They must be sure to give the child the love that will assure his security.

D. They must not be too critical, nor must they expect too much in too short a time.

E. They must not feel that they are being punished for some shortcoming of their own. Speech problems are not acts of God punishing a parent for sin nor are they inherited.

F. They should carry out the suggestions given them by the speech correctionist and the teacher.

Expected Results from Teaching

A. The therapist or teacher will suggest the level of achievement the speech defective may be expected to reach.

B. The parents and teacher must remember **that if the speech defective does the best he can, then he is successful.**

THE MATTER OF HABIT

No one will deny that our speech is composed of many habits. We also acquire habits of saying words a certain way and producing sounds a certain way. Though originally the child might begin saying "wadie" for "lady" because he did not have the ability to produce a correct "l" sound, he ultimately develops a habit of saying "wadie" which persists even after he has learned to make a good "l" sound. Because of the element of habit, we must be judicious in our approach to breaking the old habit and substituting in its stead a new habit. A cardinal principle must be **"don't nag."** It is true that we are striving for speech consciousness, but we do not want the child to be self-conscious of his problem. If the child at first experiences difficulty in producing various consonants, do not be alarmed if his speech shows no immediate improvement. It takes time and repetition to develop a habit. We are not only developing a habit, but also breaking a habit which until now has been satisfying.

The majority of primary teachers and many teachers of advanced grades have taught speech defective pupils. They will continue to do so because

normally the speech defective child belongs in the regular classroom. Despite his special needs, he is a normal child. It is not idle speculation to suggest that the degree of handicap is proportionate to the acceptance or rejection of the speech defective.

It is important to realize that our speech is an index to what we are and how we feel. It is imperative to realize that speech is a vital communicative tool; that society is no longer content with the fact that her members speak but is very concerned with how they speak. Reflection on these points demonstrates that a speech defect is a serious handicap, one which involves not merely a dysfunction of the articulators but a total personality.

The concept of the whole child is not a myth. It is a premise upon which the profession of teaching is based. It is never more dramatically manifested than in man's speech. It is not Johnny's articulators which speak but Johnny who uses articulators to speak and in the process gives vent to his frustrations, ambitions, and his thrill of success.

Because we are teaching the whole child, we cannot be unmindful of his special needs. There is no rose without a thorn. There is no child without a special need.

IS A SPECIAL PERIOD NECESSARY FOR GENERAL SPEECH IMPROVEMENT?

Our answer to the question is an emphatic "no." You should not accept improper or lazy speech in any class even if you have a class in speech. Though for instructional purposes the various subjects are departmentalized, we must still remember that 4 + 5 is not ten even in a geography lesson. The same is true of speech. We are listing here opportunities for speech improvement in your various classes:

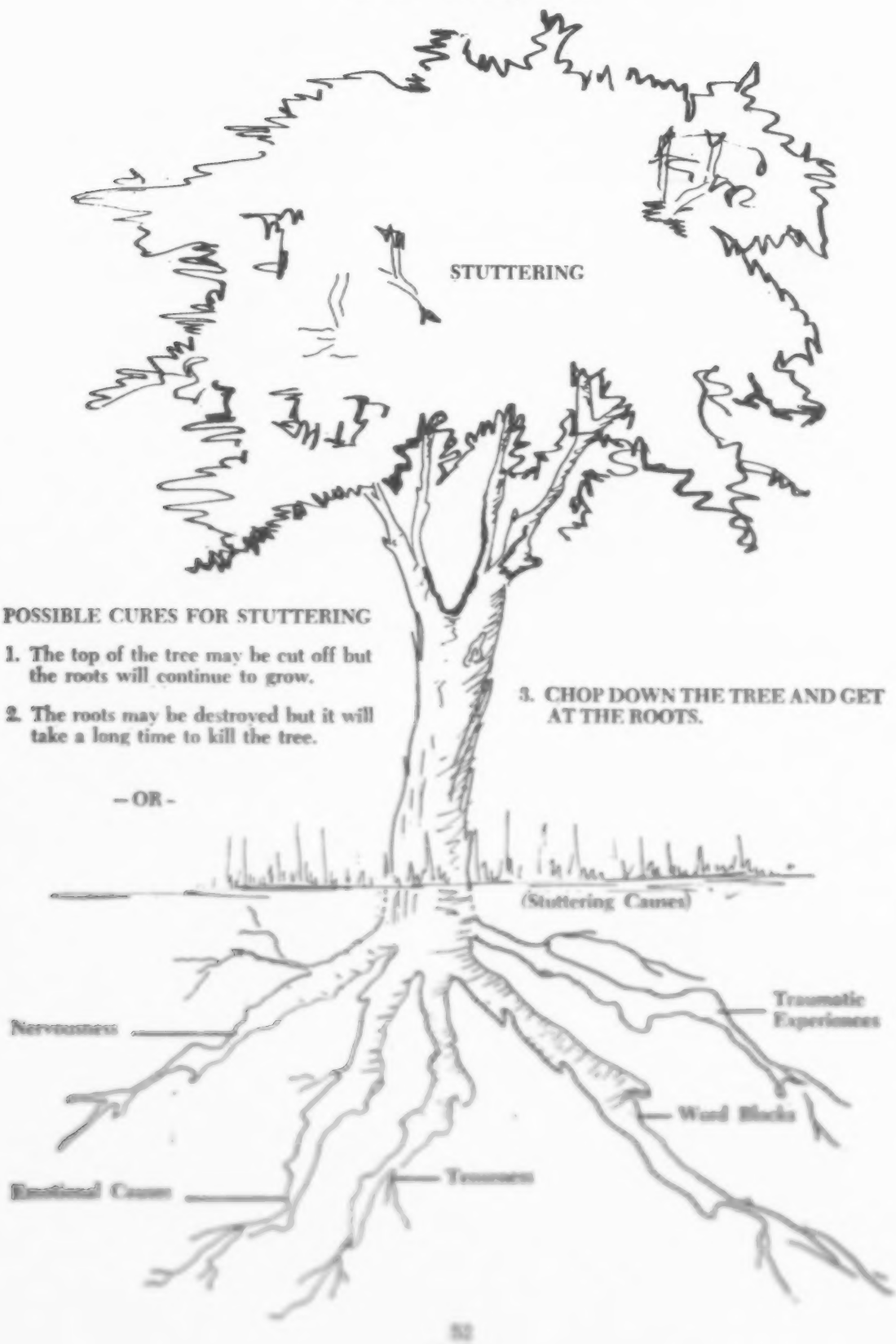
1. In all subjects:
   a. Answering questions
   b. Asking questions
   c. Class contributions
   d. Oral reports
   e. Reading aloud
2. Reading:
   a. Phonic drills and games
   b. Oral reading with proper phrasing and inflection
   c. Pantomime play
   d. Dramatizations
   e. Silent reading and retelling story
   f. Choral reading
3. Language:
   a. Definition
   b. Giving sentences, phrases, etc.
   c. Explanation of processes
   d. Playing store
   e. Drill work in choral recitation
4. Oral English:
   a. Visualization exercise
   b. Dramatizations
   c. Choral speaking
   d. Story telling
   e. Giving directions
   f. Relaying messages

5. Health:
   a. Teach relaxation
   b. Emphasis on correct posture
   c. Breathing exercises
   d. Exercises for muscular coordination

6. Gym – games to:
   a. Improve posture
   b. Build habits of better mental and physical poise
   c. Develop the power to relax the muscles to proper degree of muscular tones

Take an inventory of the many opportunities that the regular classroom situation provides.

The Stuttering Tree



POSSIBLE CURES FOR STUTTERING

1. The top of the tree may be cut off but the roots will continue to grow.
2. The roots may be destroyed but it will take a long time to kill the tree.

– OR –

3. CHOP DOWN THE TREE AND GET AT THE ROOTS.

UNIT V

OTHER SPEECH DEFECTS

It is understandable that the treatment of the more serious cases of speech defects requires specialized training. Consequently, it is urged that these serious cases be referred to a speech correctionist. In the ideal clinical situation, the correctionist will suggest that the teacher and parent give various exercises or follow certain procedures. It is necessary that they follow the suggestions of the correctionist so that they will work together for a common objective.

STUTTERING

Most teachers and parents and certainly the stutterers themselves are disturbed over the symptom of non-fluency in speech. Some stutterers read without stuttering; others stutter only when they read; and others stutter in reading and conversation. Few, if any, stutter every time they talk or read. Consider too the numerous home remedies that are suggested which range from cajoling to physical punishment.

In general, it is best for parents and teachers to disregard the stuttering. Making the stutterer aware of his speech defect, impressing him with the fact that his speech is not acceptable, merely creates more tension. Consult a speech therapist. He will give you specific suggestions. The following general suggestions have proven helpful.

I. General Suggestions:
   1. Bring the stutterer to the attention of a speech correctionist.
   2. Accept the stutterer's speech pattern without reacting emotionally to it.
   3. Prevent laughter at his speech.
   4. Don't hurry the child's speech and don't "put words into his mouth."
   5. Convince the stuttering child that there is nothing essentially wrong with him, that he must share himself with others, and that his speech problem can be helped.
   6. Permit the child to choose his own handedness.

II. For the Parents:
   1. Keep the child in good physical health.
   2. Keep the atmosphere of the home congenial.
   3. Don't antagonize the child by scolding him about his speech and never punish him for stuttering.
   4. Encourage the child to talk in situations which are ideal for conversation, such as at the dinner table and after supper.
   5. Avoid unnecessary excitement.
   6. Don't compel the child to speak if he is unwilling. Conversely, encourage him if he feels like talking.

7. Cooperate with the classroom teacher and speech therapist.
8. Accept the child.

III. For the Teachers:

1. The stutterer's schoolroom should be free from tensions and conflicts.
2. Remind his classmates not to laugh – that this is a temporary speech difficulty which can be overcome if they help by not laughing.
3. Remember that "I don't know" many times means "I'd rather not try to talk now" and is not to be construed as mental inferiority. Give due consideration to his written work.
4. Call upon him to answer orally when you feel he will know the answer. Word the questions in such a way that only a few words in response will be necessary. Gradually increase the complexity of the child's spoken responses.

IV. Conclusion:

These are not meant to be construed as therapies for the stutterer. If, however, parents and teachers follow the suggestions offered, the therapies employed will be much more effective.

CLEFT PALATE

A cleft palate is often referred to as "a hole in the roof of the mouth" and the resultant speech is described as "talking through the nose." This "hole," or cleft, may be repaired surgically and most often the child requires special therapy to learn how to control the speech musculature so that the speech is less nasalized. It is very important that parents and teachers assume a realistic attitude toward the cleft palate child. He needs neither pity nor scorn, neither over-protection nor rejection. Give him a chance to participate orally if he so desires. If he chooses to withdraw, do not force him to participate, but by skillful manipulation of the activity draw him into participation. And if you fail to understand his speech because of the nasality, do not become irritated. A child soon realizes that you are irritated. Be patient when you ask him to repeat.

SUGGESTIONS FOR PARENTS:

A. The child needs his parents' love and he needs to feel wanted.

B. He needs to believe that his parents like him for himself, just as he is.

C. The parents should encourage him to speak and should praise and help him to enjoy speaking. They should show him that they love and accept him.

D. Consult a speech correctionist for guidance.

THE HARD OF HEARING

The importance of hearing can best be emphasized by remembering your last incident of not being able to hear because of some interfering noise or by the speaker not speaking distinctly or loudly enough to be heard. Even with normal hearing we can remember times when speech was not loud enough to be understood or was loud enough but not clear enough to be understood. This is the problem faced by the hard of hearing every minute of every day.

Reports indicate that from two to five percent of the public school pupils have a hearing loss sufficient to be an educational handicap. One of these pupils might well be yours. Signs which often indicate a hard of hearing child are:

1. May have a dull or inattentive attitude.
2. May have a speech defect.
3. May ask for repetition or often miss assignments.
4. May often misunderstand what is said.
5. May breathe through the mouth and complain of colds, earaches, head noises, etc.
6. May turn the head to one side.

7. In extreme cases, may cup the hand to the ear in order to hear more clearly.

8. May be a behavior problem, either withdrawn or overactive.

A hearing loss is an all day handicap. It is therefore the responsibility of the home and the school to aid and encourage such children. It is important that the hearing impaired child be treated the same as his normal-hearing friends, to the extent possible. However, there are some ways in which his hearing loss will require special consideration. A list of helpful hints concerning the hard-of-hearing child are listed below:

TO PARENTS AND TEACHERS:

1. The hard-of-hearing child is normally deficient in three areas: speech, hearing (or listening), and speech reading (lipreading). He should consciously strive to improve these areas.

2. The child should be encouraged and required to use the best speech that he is capable of producing. He should not be allowed to use his hearing loss as an excuse for giving poor responses.

3. A hearing impaired child should recognize his hearing handicap and therefore listen more carefully in an effort to compensate for this loss. If a hearing aid has been recommended by an otologist, the child should be properly fitted with one and then wear it faithfully.

4. The child should be made aware that he can and should learn to read lips. He should watch the face of the speaker not only to read lips but also to gain further understanding through facial expressions.

5. The recommendations which are made for the individual child, as recorded on his audiogram card, should be made known to those who supervise his learning – teachers, members of the family, etc. Follow the suggestions inconspicuously and without continually reminding the child of his handicap.

6. There are many aspects of lipreading which need to be understood:

A. The speaker should face the hearing impaired child and stand sufficiently close for him to see the speaker's lips clearly.

B. Do not speak in an extremely loud tone as this tends to distort the sound of your voice and the child may not understand as well as if you spoke more softly and distinctly.

C. Speak normally, without exaggerated lip movements. Exaggerating lip movements make lipreading more difficult.

D. Do not object to repeating if the child requests that you do so. He should not feel embarrassed about having to ask the speaker to repeat. If

he does not understand the second time, change the wording of what you are saying.

E. A well lighted room is a necessity for the lipreader. See that there is not a glare, from the window or a lamp, behind the head of the speaker. This can usually be avoided by having the child seated so that the light is behind him.

7. Include the child in any conversation in which he would normally be included if he did not have a hearing loss. Encourage him to participate.

8. Encourage the child to join in group activity. Too often a hearing loss causes a child to become shy and withdrawn.

9. Be especially vigilant in noting colds, flu, throat and nose infections, etc., in the hard-of-hearing child. If at all possible these conditions should be prevented. When they do occur, they should be cleared up as rapidly as possible.

TO PARENTS:

1. Make it a definite point to have some individual conversation with the child each day and see that other members of the family do the same.

2. Urge the child to visit the homes of friends and have his friends visit him in his home.

3. Often the hard-of-hearing child wants the radio or television turned on so loud that it is a distraction for other members of the family. Don't discourage his listening. He can learn much in this way. There are inexpensive individual ear phones on the market today which are easily connected to any radio or television. He can then listen with the volume turned up without disturbing others.

4. It is essential for parents to be frank in judging and facing the situation – do not deny a loss where there is one, nor imagine a loss where there is none. If the loss has definitely been determined, talk it over frankly and unemotionally with the child and other members of the family.

TO TEACHERS:

Each teacher should be made aware of any children in her class who have had their hearing tested. She should be told which have adequate hearing and which have hearing losses. Those who have hearing losses should have in their permanent record file an audiogram card showing the degree and pattern of the hearing loss. Proper recommendations should be noted on the reverse side of the audiogram card. Those who work with a hearing impaired child should know and follow these recommendations.

1. A hard-of-hearing pupil should, if the loss is about equal in both ears, be seated toward the front of the class, a little off center on the side toward the window.

2. If the child's hearing impairment involves only one ear, or if the impairment is definitely greater in one ear, he should be seated toward the front on the side which has the greater loss. In this position he will hear the teacher best, his poorer ear will be next to the wall, and his classmates will all be on his better hearing side.

3. Encourage the hearing impaired child to turn or move in order to see and hear the speaker.

4. Do not over-estimate the hearing efficiency of the hard-of-hearing child. When he pays close attention, he will seemingly hear quite well. He hears at the expense of a greater effort than the normal-hearing child and it is difficult to hold his attention for long periods of time.

5. Encourage the pupil to engage in all activities which improve speech and language: plays, spelling contests, debating, vocal music, etc.

MENTAL RETARDATION

I. Definition

A. Mental retardation denotes low intelligence with an Intelligence Quotient of 70 or below.

B. It is a permanent condition.

II. Causes

A. Inherited. Parents are also retarded.

B. Injury. This may occur before, during, or after birth.

C. Cultural deficiency. This may occur if the child is reared in an atmosphere without stimulation or interest.

III. Types

A. In present day terminology, the mentally retarded are divided into three groups:

1. Those needing custodial care.
2. Those who are trainable or who can learn self-care. I.Q. below 50.
3. Those who are educable and can learn up to about fourth grade material. I.Q. 50 to 70.

B. A mentally retarded child takes about three years to learn what a normal child learns in one year.

C. Each child must be treated individually and make progress at his own rate.

D. Two per cent of the population is mentally retarded.

IV. The speech therapist

A. The speech therapist does not feel that much can be done for the mentally retarded in speech in the usual clinical situation.

B. It has been demonstrated that as intelligence goes down, speech errors go up.

C. Speech in the retarded is developed only as far as expected for the mental age development in normal children.

V. The classroom teacher

A. The classroom teacher must work with the children's speech every day.

B. More patience, more interest, more stimulation are necessary to see progress with the retarded.

C. A good speech example must be maintained at all times.

D. Effort must be made to learn each child's particular language, in order to establish communication.

E. The indirect approach is usually the most successtul. Lack of intelligence keeps the retarded from progressing too much with the direct approach.

F. When established, rapport has a great effect. Then the child does not fear ridicule or suffer from lack of understanding.

G. Phonic sounds can be used as a method for learning the alphabet, improving reading, and indirectly affecting speech.

H. Those who refuse to talk must be asked questions which elicit, at first, at least nods for yes and no. From that beginning communication, it is possible to proceed further.

VI. Expected results

A. Results can be rated only individually, whatever the mental age predicts.

B. Progress with the retarded shows a greater rate when the children are removed to the special class in their early school years.

1. A pattern of success can thus be established instead of the usual pattern of failure and frustration.
2. In the special class, speech gets more attention.

CEREBRAL PALSY

I. Definition

A. Cerebral palsy is a crippling condition, a neuro-muscular impairment.

B. Seven such children are born every year per 100,000 births.

1. One will die before six.
2. Two will be completely helpless.
3. Two will be trainable or educable.
4. Two will be almost normal.

C. Cerebral palsy is a medical problem, a physical problem, and a social problem.

II. Causes

A. Cerebral palsy is caused by brain damage.

B. Such damage usually occurs before, during, or shortly after birth.

III. Types

A. Spastic. Some muscles are abnormally tense and movements are jerky. One side only may be affected.

B. Athetoid. This condition is characterized by involuntary and uncontrolled movements.

C. Ataxia. This condition is characterized by lack of co-ordination and balance.

D. Tremors. This condition is characterized by uncontrollable nervous shaking.

IV. Therapy

A. The speech therapist proceeds with her examination as with a normal child.

1. Phonetic inventory
2. Oral examination
3. Evaluation of mental ability
   a. Thirty per cent are defective.
   b. Five per cent are superior.
   c. Sixty-five per cent are normal.
4. Diagnosis of symptoms

B. The therapist can help the child accept himself and his limitations in a realistic way.

C. The therapist can help him develop self-reliance.

1. Emphasis should be placed on speech used in life situations.
2. The beginning lessons should be on sounds which will give him the most immediate benefit.

D. Speech can usually be improved but can seldom be brought to normalcy for progress is slow.

E. Characteristics of cerebral palsy speech are:

1. Poor articulation.
2. Abnormal voice.
3. Slow labored rate.
4. Faulty rhythm.

F. Improvement is dependent on the co-operation of the child.

V. The classroom teacher

A. The classroom teacher should establish rapport as early as possible through personal friendliness, warmth, interest, patience, and honest liking and respect for the child.

B. Some way must be found to establish a feeling of success.

1. Goals must be kept within reach.
2. An effective incentive is encouragement through actual accomplishment.
3. Speech defects are common.
   a. Sixty per cent have speech disorders.
   b. Group therapy should be used for several children so that a child does not feel "singled out."
   c. Games are a useful method.

d. The child should be accepted into the group as a real member, not as an outsider who has to be taken into consideration.

4. The teacher should meet with the parents to help them accept the child and his limitation and to set up realistic goals in life.

VI. Expected results

A. With full co-operation of orthopedist, psychiatrist, physical therapist, speech therapist, classroom teacher, and parents, the mildly damaged cerebral palsy child may be expected to develop until he can take his place in society.

B. The severely damaged will necessarily always need to live and work under sheltered conditions.

C. It is to the advantage of both child and the teacher if cerebral palsy can be recognized early and the child's goals kept within reach.

1. Success will then take the place of frustration and failure.
2. An individual with good mental health and stability will then be developed in spite of his handicap.

DISORDERS OF VOICE

I. Characteristics of a normal speaking voice are:

A. Adequate loudness.

B. Adequate pitch level – appropriate to age and sex.

C. Adequate flexibility – expresses variations in stress, emphasis, and meaning.

D. Clear and pleasant voice quality.

II. Definition of disorders

A. The voice is not appropriate to child.

B. Voices that are related to serious physical or psychological conditions and those which are especially inadequate because of poor habits of production are considered defective.

C. Any departure from these norms should be considered a vocal disorder: adequate loudness, appropriate pitch level, flexibility, and acceptable quality.

III. Types of disorders

A. Pitch – highness or lowness of the voice with respect to the musical scale.

B. Loudness – the sound produced lacks adequate intensity; voices do not "carry well."

1. Temporary loss of voice.
2. Voice too loud.
3. Voices deficient in loudness.

C. Voice quality – most frequently occurring disorders of voice quality:

1. Nasality.
   a. The soft palate and walls of the throat do not perform their usual function of shutting off the upper part of the throat and nasal cavities during the production of non-nasal sounds.
   b. Symptoms of cleft palate.
   c. Too much tension of soft palate.
2. Breathiness.
   a. A whispered effect added to the usual vocal tone.
   b. The vocal folds not brought closely enough together during the production of vocal tone.
3. Hoarseness and huskiness.
   a. Inflammation of larynx and vocal folds.
   b. Unsuited pitch level.
4. Harshness.
   a. Too much muscular tension in throat and larynx.
   b. Lacks clearness of tone.
5. Flexibility.
   a. Extremely monotonous and inexpressive with respect both to loudness and pitch.
   b. Accompanied by mumbling or indistinct articulation.

IV. Voice problems common to school pupils

A. Pupils who continue "baby talk" or infantilism.

B. Boys and girls who are in the process of adolescent voice change.

C. Students who are using a pitch range which is not appropriate for their age and sex.

D. Students with varying degrees of insufficient loudness.

E. Cases of nasality, cases of denasality, and, surprising as it may seem, students in whom these qualities are mixed.

F. Pupils with breathy voices.

G. Some whose voices are hoarse, husky, and strained.

V. Causes of disorders

A. Organic – physical.

1. Structural deformity of oral cavity.
2. Cleft palate.
3. Enlarged adenoids – cannot produce sounds "m," "n," "ng" adequately.

4. Condition of larynx.
   a. Irregular glottis.
   b. Vocal nodules – corn-like thickenings on vocal bands.
5. Cancer.
6. Glandular abnormality – hypothyroid or hyperthyroid.
7. Allergic sensitivity.

B. Functional
1. Imitation – poor speech models.
2. Psychological – emotional stresses or disturbances.
   a. Deficient loudness may come from excessive shyness and academic difficulties.
   b. Lack of flexibility and expressiveness seem to be related to a general behavior pattern of withdrawal and a lack of security.
3. Adolescent voice change.
   a. In males the change in pitch is approximately one whole octave.
   b. In females the pitch changes from one eighth to one quarter octave.
   c. The boy's glottis nearly doubles in length in a few months.
   d. Although the pitch breaks are rarely heard, girls' voices are often breathy and husky during this period.
4. Unsuitable pitch level.
5. Poor breathing habits – shallow or involves excessive tension.
6. Improper vocal habits.
7. Foreign dialect.
   a. The process of learning a language is the mastering of a sound system.
   b. A foreign dialect is often the external evidence of less obvious deficiences in English skills, such as limited vocabulary, poor reading comprehension, and inability to express oneself effectively.

VI. Vocal hygiene for boys and girls

A. Practice daily until relaxed throat and good voice quality becomes habitual.

B. Do not try to use "pinched throat" in attempting to make the voice carry farther – especially in the outdoors.

C. Any vigorous clearing of the throat should be avoided.

D. Laryngitis or loss of voice requires complete rest. Return to speech slowly and talk as little as possible. Relaxed whispering is all right, but if one strains to whisper during laryngitis, the results may be permanent hoarseness.

E. Never vocalize when lifting heavy objects.

F. Do not make undue demands on the vocal mechanism. Vocal strength varies among individuals just as general health does.

G. Tonsils are not needed for good voices.

H. Huskiness is associated with puberal change.

I. If a student seems to have a sensitive vocal tract, he should have more rest, adequate diet and wearing apparel, and should avoid smoking and drinking.

J. When a person is wearing appliances for dental and eventual speech improvement, it may be a waste of time and energy to work on his speech since oral relationships are changing. Guard against the fixing of objectionable articulatory habits which later have to be replaced by desired ones.

K. Students should refrain from excessively loud talking, yelling, or other vocal abuse during the period of readjustment of delicate structures (adolescent voice changes).

L. As a rule, voice training is not indicated for students who are undergoing voice change, for in most of these cases nothing can replace time as a remedial factor.

VII. Suggestions for teacher

A. Motivate the child to improve.

B. Emphasize the oral aspect of every classroom experience. Seventy-five per cent of communication is carried on through the spoken word.

C. Remember that a loud voice sometimes indicates a loss of hearing.

D. Develop a voice which is, itself, adequate in all important aspects.

E. Do not undertake to correct voice problems unless you are prepared to carry through with the work.

F. Be interested in the whole child and establish a program of building self-confidence, correcting academic difficulties, and improving other areas of insecurity.

G. Recommend more voice hygiene — a course in voice improvement and diction.

H. Refer for professional help voices that are husky, hoarse, and show evidence of muscular tension. These are the most vital voice referrals.

I. Do not attempt voice training for students who are undergoing voice change.

J. Manipulating the student's tongue or lips with fingers or any kind of instrument should seldom, if ever, be done.

K. Remember not to be too progress-conscious while applying corrective speech work.

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L. Put the child on a school program or give him a role in a skit. Don't set the goal too high.

M. Help the speech correctionist with "carry over" activity.

N. Help the speech correctionist with surveys or refer students to her.

O. Create therapeutic writing experiences as well as more oral reading and choral speaking.

P. Develop a free, spontaneous atmosphere.

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UNIT VI

HEARING AND SPEECH SERVICES

STATE DEPARTMENT OF EDUCATION
HEARING AND SPEECH CORRECTION PROGRAM

TESTS AVAILABLE

Preliminary Hearing Test:

This test is administered by the teacher to those pupils who appear to have difficulty in hearing. It consists of a series of words spoken in a normal voice from various positions in the classroom. The pupils record their responses on an answer sheet. The purpose of this test is to eliminate normal hearing pupils from the necessity of taking additional individual tests to determine loss in hearing. Those pupils who make errors are referred for individual audiometric tests.

Preliminary Speech Test:

This test consists of a series of pictures and word completion items. The test is administered individually by the teacher and the child's responses are indicated on the answer sheet which is provided with each test. The answer sheets are sent to the office of the Hearing and Speech Correction Program. These tests provide the teacher with an insight into the child's speech problem and assist the speech therapist when he has his diagnostic interview with the child.

SERVICES AVAILABLE

Eligibility: Children of school age.

A. Hearing Conservation

1. Provide audiometric tests for children at the schools' request.
2. Lend screening audiometers to the schools at their request.
3. Provide bulletins to parents and teachers concerning procedures to help the hard-of-hearing or deaf child.
4. Give financial aid for an examination by an otologist for children whose parents are unable to bear the full burden of these expenses. All authorizations for this aid are issued on the request of the local school authorities (a) after they have had the hearing of the student tested and established a need for medical care, and (b) after they have established the financial need of the child and his parents. When these needs have been established, the school official should contact the parents to arrange to have the child examined. He should then

write to the Hearing and Speech Correction Program stating the family's inability to pay for the examination and request an authorization for payment for the examination before the examination is made. Limited financial assistance is available in carrying out the otologist's recommendations by following the same procedure.

B. Speech Correction

1. Provide clinics in the schools to test the speech of any child suspected of having a speech difficulty. The school authorities should write and request this service, giving the names of those children they desire tested.

2. Provide clinics in various sections of the State to give therapy to children with speech difficulties. For information concerning the speech clinic nearest you, write to the Hearing and Speech Correction Program. These clinics are regional in scope and serve the pupils from every type of school. In addition to these clinics which are staffed by therapists from the Hearing and Speech Correction Program, contracts are maintained with the Columbia Hearing and Speech Center, the Florence Speech and Hearing Center, the Charleston Speech and Hearing Clinic, the Greenville Speech and Hearing Clinic, and the Spartanburg Speech and Hearing Clinic. Under these contracts, the program pays a set fee for services provided for public school pupils.

3. Offer State Aid for local public school speech therapy programs.

4. Provide bulletins for teachers and parents with advice on helping the child with a speech defect.

CHARLESTON SPEECH AND HEARING CLINIC

79 Alexander Street
Charleston, South Carolina

Supported by contributions, Junior League, State Board of Health, United Fund, State Speech and Hearing Program, and private clubs and organizations.

Services:

Speech and hearing therapy, language training and lipreading for the deaf, individual and group.

Eligibility:

Any speech defective regardless of race or creed. All ages enrolled. The clinic does not take severely mentally retarded.

Application Procedure:

Contact director for initial interview.

Fees:

Fees are based on patient's ability to pay.

HEARING AND SPEECH CENTER, COLUMBIA

Address: 1845 Assembly Street, Columbia, South Carolina
Telephone: 252-0303
Office Hours: 9:00 A.M - 5:00 P.M., Monday through Friday

Services:

Evaluation and therapy services for individuals with speech and/or hearing problems. Audiological services – pure tone audiometric testing, speech audiometry, electrodermal audiometry, lipreading, auditory training, hearing aid evaluations, class for pre-school children with hearing disorders. Speech evaluation and therapy for individuals and groups according to need and potential to accept speech training. Areas covered – articulation, stuttering, voice, post laryngectomy, aphasia, cleft palate, and cerebral palsy.

Serves:

Anyone who after evaluation is found to have a primary problem with speech and/or hearing.

How to Apply:

Contact agency. Applicants from any area seen via waiting list.

Source of Funds:

United Fund Torch Drive, Junior League of Columbia, Crippled Children's Society, Richland County Delegation, State Board of Health, State Department of Education, South Carolina Vocational Rehabilitation Department.

Fees:

There is a standard fee schedule, but no person will be refused because of the inability to pay. Partial payments are accepted. The Center can provide for such instances through the financing of the United Fund. NO CHARGE to individuals eligible for service through a supportive or contributive agency.

FLORENCE SPEECH AND HEARING CENTER

Route 2, Darlington Highway
Florence, South Carolina
Telephone 662-2781

Source of Support: Florence County Easter Seal Chapter, fees from clients, contracts with the State Department of Education, and other interested agencies.

Services: Speech and Hearing Center for children and adults. Hearing tests; evaluation of speech and language development. Special programs for cleft palate, cerebral palsy, hard-of-hearing, articulation, stuttering and delayed speech and language.

Eligibility: Residents of Florence County and the Pee Dee Area. No age limit.

Application Procedure: Clients are seen by appointment only. Applications should be made to the above address.

Fees: Dependent upon patient's ability to pay or other sponsorship.

UNITED SPEECH AND HEARING SERVICES OF GREENVILLE COUNTY

Nurses Home of General Hospital
Greenville, South Carolina

Services: Evaluation and therapy for articulation disorders, foreign dialect, cleft palate, stuttering symptoms, aphasia, cerebral palsy, voice disorders, tongue thrust, laryngectomy cases, the hard-of-hearing, and the deaf.

Other services rendered are hearing aid consultations, parent counseling and guidance, hearing conservation supervision in the public schools, public programs in the form of speeches and lectures, and consultation to other allied agencies.

Eligibility: Services are open to any adult or child needing help in the speech and hearing areas.

Application Procedure: Application can be made by telephone, letter, or in person. Usually, problems resulting from physical origin are asked to provide a medical referral.

Fees: Fees are scaled according to the patient's ability to pay. For the indigent, services are free. This is a non-profit organization, thus charges are for only basic cost of program.

Supported by: United Fund, Greenville County School District, State Department of Education, State Board of Health, and fees.

THE SOUTH CAROLINA SCHOOL FOR THE DEAF AND THE BLIND

Spartanburg, South Carolina

The State School for the deaf and/or blind provides residential training for deaf and/or blind and aphasic children. For information concerning enrollment procedures, contact Dr. W. L. Walker, Superintendent, Spartanburg, South Carolina.

SPARTANBURG SPEECH AND HEARING CLINIC

130 W. Hampton Avenue
Spartanburg, South Carolina

Supported by: Spartanburg United Fund, Spartanburg County Delegation, Spartanburg City and County Schools, Spartanburg Junior League, State Department of Education, fees and donations.

Services: Diagnostic and therapeutic services for all types of speech and hearing problems. Hearing evaluations are offered; however, hearing aid evaluations are not available at present.

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Eligibility: Any person with a speech or hearing handicap, regardless of race or age. No geographic limits are set.

Application Procedure: An application form for services is available for all persons wishing to apply for initial diagnostic and consultation service. The forms are available at the clinic. They may be obtained by letter or telephone.

Fees: The clinic utilizes a fee schedule. A sliding fee scale is available for those persons who cannot pay the set fees. The clinic will provide services for all clients regardless of the ability to pay.

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APPENDIX

SOME HELPFUL BOOKS AND ARTICLES

These books and articles may be helpful to teachers. You may desire to add one or more of them to your professional library.

GENERAL REFERENCES

Ainsworth, S., "Let's 'Immunize' Against Speech Defects," Hygeia, 25:384, May 1947. Chicago, Ill. (Magazine now called *Today's Health.*) An article describing how speech develops and what parents can do to prevent speech defects.

Ainsworth, S., *Speech Correction Methods.* NY: Prentice-Hall, Inc., 1948. Manual written to acquaint students, teachers and speech clinicians with a sound, concise plan for organizing and administering a speech correction program. In Part I, the organizational problems in setting up and maintaining a successful speech correction program are discussed. Part II is concerned with methods for treating individuals who have speech problems.

Anderson, V. S., *What Should I Know About Speech Defects?* Columbus Bureau of Special and Adult Education, Ohio State University, 1946. This handbook for the classroom teacher is an excellent survey of speech problems and general suggestions.

Backus, Ollie L., *Speech In Education.* A guide for the classroom teacher. NY: Longmans, Green and Co.

Beasley, Jane, "Relationship of Parental Attitudes to Development of Speech Problems," *The Journal of Speech and Hearing Disorders.* 21:317, No. 3, September, 1956. ASHA, Wayne University, Detroit, Michigan.

Bender, James F., and Fields, Victor A., "Motivating and Guiding the Speech Handicapped Student and His Parents," *Principles and Practices of Speech Correction.* NY: Pitman Publishing Co., p. 173.

Berry M., and Eisenson, J., *The Defective in Speech.* F. S. Crofts, 1956.

Cypreansen, Wiley, Laase, *Speech Improvement and Correction.* NY: The Ronald Press Co., 1959.

Hejna, Robert F., *Your Child's Speech — Normal or Defective?* A handbook for parents. Madison, Wisconsin, College Typing Co., 1955.
This is a description in detail of a child's speech development and ways to aid in this development. Aids in differentiation between speech that is normal and speech that is defective.

Irwin, Ruth B., *Speech and Hearing Therapy.* NY: Prentice-Hall, Inc., 1953. A book about speech and hearing therapy in the public schools.

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Johnson, Wendell and others, *Speech Handicapped School Children.* NY: Harper and Brothers.

Johnson, Wendell, ed., *Speech Problems of Children.* NY: Grune and Stratton, 1950.

"Speech Development in the Young Child," *Journal of Speech and Hearing Disorders.* 12:269-280, 1939. ASHA, Wayne University, Detroit, Michigan.

Van Riper, C., *Speech Correction Principles and Methods.* NY: Prentice-Hall, Inc., 1947. Although this is an authoritative textbook, it is written in a style that presents a comprehensive view of speech problems in a very understandable and interesting manner. Sound therapeutic principles and many practical suggestions are presented for specific defects.

APHASIA

Berry, H., *The Young Aphasic Child.* Washington 7, D.C.: The Volta Bureau, 1537 35th Street, NW.

McGinnis, Mildred A., *Aphasic Children Identification and Education by the Association Method.* Washington 7, D.C.: The Volta Bureau, 1537 35th Street, NW.

ARTICULATION

Abney, L., and Mineace, D., *This Way To Better Speech.* Washington 7, D.C.: The Volta Bureau, 1537 35th Street, NW.

Ainsworth, S., *Galloping Sounds.* Stories for Speech Practice and Remedial Reading. Magnolia, Mass.: Expression Co., 1962.

Barrows, Sara T., and Hall, K., *Games and Jingles for Speech Development.* Magnolia, Mass.: Expression Co., 1936.

Barrows and Livingston, *Speech Drills for Children in Form of Play.* Magnolia, Mass.: Expression Co., 1942.

The Bulletin of National Association of Secondary School Principals 34:35-40, 71-73, 106-112. November, 1950. Washington 6, D.C.: National Association of Secondary School Principals, 1201 16th Street, NW.

Carmichael, L., "Language Development in Children," *Manual of Child Psychology,* Chapter X, NY, 4th Avenue: John Wiley and Sons, Inc.

Fairbanks, G., *Voice and Articulation Drill Book.* NY: Harper, 1940. The common errors for each of the consonant sounds are given and a general discussion of the nature of articulatory defects is provided.

Keppie-Wedberg-Keslar, *Speech Improvement Through Choral Speaking.* Magnolia, Mass.: Expression Co., 1942.

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Nemoy, E., and Davis, S., *The Correction of Defective Consonant Sounds.* Magnolia, Mass.: Expression Co., 1937. Exercises for the correction of each sound, a description of how each sound is made, and the common errors for each sound are given.

Schoolfield, L., *Better Speech and Better Reading, A Practice Book,* Magnolia, Mass.: Expression Co. 1959. Upper grades. Provides word lists and drill sentences for each sound.

Scott, L. B., and Thompson, J. J., *Talking Time: For Speech Correction and Improvement.* St. Louis: Webster Publishing Co., 1951. Provides stories and poems for classroom speech work in the lower elementary grades. Large class cards and film strips are also available.

Wolf and Kelder, *Sounds I Say* (Growth in Speech and Phonic Readiness Through Pictures) Book I and II, and teacher manuals. Moravia, NY: Chronicle Guidance Publications, Inc. Pictures and exercises for individual sound drill, descriptions of how sounds are produced, and big pictures for classroom use are provided.

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Zedler, Empress Young, *Listening for Speech Sounds.* Garden City, NY: Doubleday and Company, Inc., 1955.

CEREBRAL PALSY

Crickmay, M., "Description and Orientation of the Bobath Method With Reference To Speech Rehabilitation In Cerebral Palsy." Chicago, Ill.: National Society for Crippled Children and Adults, 11 South LaSalle Street, 1956

Darley, Frederic L., *Symposium on Cerebral Palsy.* Chicago, Ill.: National Society for Crippled Children and Adults. Order through Executive Sec., ASHA, 1001 Conn. Ave., NW, Washington 6, D.C., 1962.

Evaluation and Education of the Cerebral Palsy Child, pamphlet, New Jersey Study. N. J. State Department of Education, Trenton 25, N. J.

Hansen, R., *The Parents' Role in the Cerebral Palsy Problem.* Los Angeles: Orthopedic Hospital, 2424 S. Flower St., Los Angeles 7, July 1946. This is a general bulletin designed to help parents understand their children's problems and to provide specific guidance for total training process.

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CLEFT PALATE

Crippled Children's Service Pamphlet, S. C. State Board of Health, Columbia, S. C.

Eckelmann, D., and Baldridge, P., *Speech Training for the Child with a Cleft Palate.* Reprints of this article may be obtained from Dr. D. W. Morris, Secretary-Treasurer of American Speech Correction Association, Ohio State University, Columbus 10, Ohio. This is one of the best descriptions of the speech problems related to cleft palate. Practical exercises and guides for speech training are clearly presented for parents and teachers.

Newsletters 1, 2, 3. Issued by the Cleft Lip and Palate Program, Division of Crippled Children, S. C. State Board of Health, Columbia, South Carolina.

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Wells, Charlotte, *A Teacher-Parent Guide to Speech Training for Cleft Palate Children.* Madison, Wisconsin: State Department of Education.

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